ENGINEERING NEWS-RECORD

Longest arch bridge in Colorado completed by state highway department

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • SEPTEMBER 4, 1941

Concrete barges ordered built for oil shipments

Maritime Commission asks for bids and designs for 100 reinforced concrete vessels, largest to be 370 ft. long with 28.5 ft. draft.

In the first attempt since the last war to use concrete in shipbuilding, the U. S. Maritime Commission has decided to build about a hundred reinforced-concrete oil barges of 5,000 to 8,000 long tons capacity. This, it is believed, will use only about half the steel which would be required for a similar capacity in a steel barge. Moreover, reinforcing rods are rather less scarce than steel plates.

Interested contractors have been asked to submit bids and designs on one to thirty barges. The commission has not made any detailed designs, but has prepared certain broad requirements for the guidance of contractors. The bidding is not competitive; reputable contractors who submit satisfactory designs at a reasonable price will be asked to build. In fact, arrangements may be worked out whereby constructors who do not feel competent to design ships might use someone else's design.

Three types to be built

Three types of barge are to be built. Two are of conventional ship shape, with and without crew facilities and steerable rudder. The third is a cigar-shaped vessel of oval cross-section with conical ends.

Hulls must be substantially monolithic. No transverse joints are to be permitted, and prefabrication will be allowed only in the deckhouse structures, not in the hull.

A concrete with a 28-day strength of 5,000 lb. compressive strength is specified, with reinforcement stresses limited to 12,000 psi. in areas where cracking might cause seepage and 20,000 psi. elsewhere. Waterproofing surface treatment will be applied to the concrete.

Only standard methods of construction will be accepted, and distortion of forms is limited to $\frac{1}{8}$ in. Reliance on vacuum process is specifically forbidden and, while no mention is made of pneumatically placed concrete, it is understood that the commission wants both inside and outside forms, which would rule out this type of placement. Vibration is required for all work.

In all types, maximum length is limited to 370 ft., and maximum draft to 28.5 ft. Minimum slab thickness to be allowed is 4 in., and at least $\frac{3}{4}$-in. cover for steel, plus or minus $\frac{1}{4}$ in., is required on the outer face, and $\frac{1}{2}$ in. on the interior surface. The maximum aggregate size is to be $\frac{3}{8}$ in., and the design is to be in accordance with the 1940 Joint Committee recommendations.

Contractors are given until Sept. 30 to submit proposals. It is expected that first deliveries will be made in January and at a rate of about 20 a month thereafter. Admiral Land, commission chief, sees his concrete barge plan as a steel-saving alternative to construction of a huge east-west pipeline. He says the hundred barges would take about 110,000 tons of steel as compared with 750,000 tons for an equivalent pipeline.

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Water consumption high set at Springfield, Ill.

A recent heat wave at Springfield, Ill., caused all previous high consumption records to be broken for water delivered from the city's water softening and purification plants. On Aug. 8 a total of 13,400,000 gal. of water was pumped and on Aug. 11 the total reached 13,300,000 gal. These figures rperesent a gain of about 20 percent since the plant was opened in 1936, according to Commissioner Willis J. Spaulding.

In mid-August an all-time pumpage rate was established when 20,000,000 gal. a day were being delivered during the hours of maximum demand.

U. S. Engineers may do Quartermaster building

Transfer of the construction section of the Quartermaster Corps to the U. S. Engineers has been recommended to Congress by the War Department. The recommendation, which will doubtless go through, would centralize all army construction in the engineers. At the beginning of the defense emergency, the engineers had the civil functions plus construction of fortifications. Other construction—a comparatively small amount in peacetime—was the responsibility of the Quartermaster Corps.

Last year airbase construction also was transferred to the engineers and they now handle about a third of all army construction work. Largest programs which would be affected by the transfer are cantonments, munitions plants, and warehouses.

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Chicago-Springfield road nears completion

Last major link in the new highway between Springfield and Chicago, Ill., was completed this week when a 53-mile section between Spaulding, which is northeast of Springfield, and Fulleton was completed. All that remains to put the new highway in service is a short section, including a viaduct over the Illinois Central track east of Springfield. This later job is expected to be completed early next month.

The new route measures 203.8 miles in length, and will eventually become part of U. S. 54. The work was done by the Department of Public Works and Buildings. Ernst Liberman was chief engineer.

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Indiana trestle burns

A burned trestle on the Chicago, South Shore & South Bend Electric Ry., near South Bend, Ind., halted traffic on that line for several hours August 29. The motorman of the first train scheduled to use the bridge after the fire started saw the danger and stopped the train. Passengers were transferred past the bridge by bus service until repairs were made.

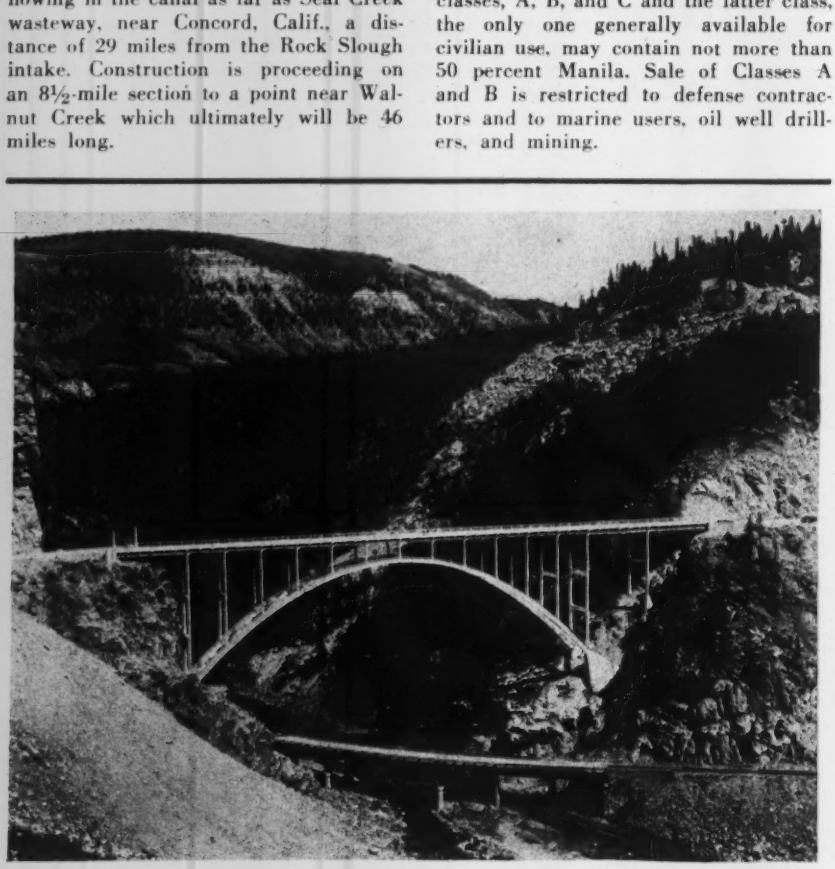
Section of Contra Costa Canal in operation

A new nine-mile section of the Contra Costa Canal in California has been placed in operation to bring water from the Central Valley project to the vicinity of Pittsburgh and Clyde, or about 40 miles east of San Francisco, according to the Bureau of Reclamation Engineer. O. G. Boden, construction engineer in charge of the Delta Division of the Central Valley project, reports that water is flowing in the canal as far as Seal Creek wasteway, near Concord, Calif., a distance of 29 miles from the Rock Slough intake. Construction is proceeding on an 8½-mile section to a point near Walnut Creek which ultimately will be 46 miles long.

PRIORITIES GUIDEPOST

Current notes on what, who and how

NON-DEFENSE CONTRACTORS may no longer buy Manila cordage containing more than fifty percent Manila fiber. In putting Manila fiber and cordage under priority control this week, OPM ruled that all Manila fiber must be used in cordage of ⅞ in. or larger or in trawler twine. Cordage is divided into three classes, A, B, and C and the latter class, the only one generally available for civilian use, may contain not more than 50 percent Manila. Sale of Classes A and B is restricted to defense contractors and to marine users, oil well drillers, and mining.



O. Roach, Denver

Colorado opens longest arch bridge in state

Spanning the Eagle River canyon, the D.&R.G.W. R.R. tracks and an old low-level highway bridge, a spectacular high steel arch bridge at Red Cliff has just been put into service by the Colorado State Highway Department to open the new 6-mile relocation of U.S. 24 over Battle Mountain. The new bridge, 420 ft. long and 209 ft. high over the Eagle River, carries a 30-ft. concrete deck on two steel arch ribs. It required 595 tons of structural steel and 50 tons of reinforcing. Frank M. Kenney, of Denver, built the structure under a $153,590 contract in a little more than a year's time despite difficult weather and topographical conditions. Steel was erected from a high-line cableway.

Opening of the bridge completes a new, safe route, 6 miles long, through Eagle Canyon and over Battle Mountain. This new route was built at a total cost of $636,405, or $106,068 per mile. The new road, which bypasses the town of Red Cliff, is limited to 6 percent grade and replaces an old steep route that crossed the river and railroad at low level, then wound through the narrow streets of Red Cliff and up the side of the canyon on a twisting location 2,000 ft. above the river. The old route was regarded as one of the most dangerous mountain stretches in the state's highway system.

The bridge was designed by King Burkhart, engineer of bridge design, under the direction of Paul S. Bailey, bridge engineer, Colorado State Highway Department. Chas. D. Vail is state highway engineer; H. E. Rowbotham was resident engineer on the project.

Contract awards soon for new army camps

For some projects lump-sum bids have been opened, while with other jobs fee contracts are being used.

The Army Quartermaster Corps is nearly ready to award contracts on its four new cantonments. Lump-sum bids on the armored division camps at Fort Smith, Ark., and Santa Maria-Lompoc, Calif., have been opened at the Western zone headquarters and are now being studied in Washington. At the same time negotiations are underway in Washington looking to fixed-fee contracts on the replacement center at Neosho, Mo., and the triangular division camp at Augusta, Ga.

On the two western projects designs have already been prepared with the aid of the special fund for engineering studies of future cantonments, which was given to the QM Corps early this year. Fee contracts are being used at Neosho and Augusta because these camps have not yet been designed. QM Corps had not expected to be called on to build these camps until later. As a matter of fact, money for the four cantonments was inserted into the recently signed supplemental defense appropriation after the bill had already passed the house.

Award of the lump sum jobs is being handled under a modified system of invitation bidding, as predicted by *Engineering News-Record* some months ago. The West Coast zone office canvassed the available contractors and invited a number of them to bid. Means were provided by which contractors not included in the canvass might ask the opportunity to bid and submit their qualifications to the War Department.

Three bids were obtained on the Santa Maria-Lompoc job and four on the Fort Smith project. All of the bids received were considered by QM as offering fairly reasonable propositions.

How soon more cantonments will be built depends on international and strategic factors. The extension of military service and removal of the 900,000-man limit on the draft army puts it in the administration's power to increase the army at any time. However, the announced plan to release 200,000 men this year indicates that not much expansion will be undertaken unless the international picture should change for the worse.

The architect-engineers for the four projects are as follows: J. B. McCrary Engineering Corp., Atlanta, Ga., Augusta project; Burns & McDonnell Engineering Co., Kansas City, Mo., Neosho job; Black & Veatch, Kansas City, Mo., Fort Smith work; and Leeds, Hill, Barnard & Jewett, Los Angeles, Calif., Santa Maria-Lompoc project.

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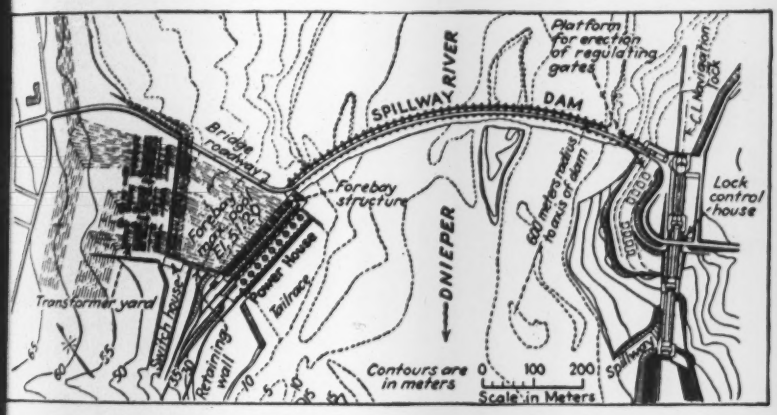
Destruction of Dnieper River Dam confirmed in Soviet news dispatches

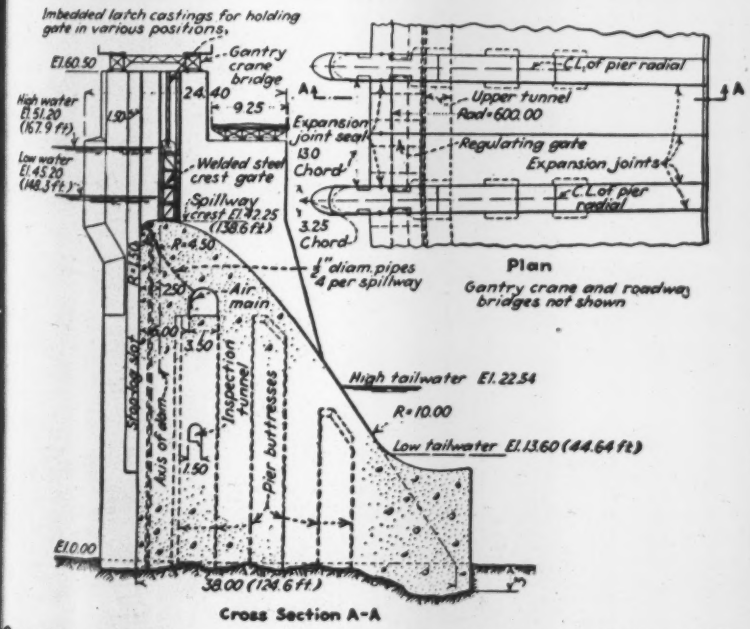
Dam and powerhouse reported to have been completely destroyed by Soviet engineers to check the German advance and to keep the plant from use should Germany get control of area.

Reports that the great dam across the nieper River has been destroyed by ussian engineers to check the German dvance, which have been current for out two weeks, were confirmed offi- ally in Moscow on Aug. 29, but what onstituted the "complete destruction" nounced is still a mystery. The ques- on of how such a dam could be de- royed is a natural one for engineers, d to aid them in their speculation two rawings are reproduced herewith from description of the Dnieprostroy power d navigation project published in *ENR*, ne 23, 1932, p. 877.

Construction of the dam was begun in 1927, and it was completed in 1932. The work was done by Russians under the direction of Hugh L. Cooper & Co., with the late Hugh L. Cooper giving much of his time to personal supervision of the work.

As will be seen from the drawings, the principal structure is a gravity section spillway about 2,500 ft. long extending across the river channel. It is surmounted by piers on about 50-ft. centers that carry crest gates, the crane runway and a highway bridge. The concrete monolith is 130 ft. thick at the base and about 140 ft. high. It is founded on dense granite, covered by a bed of large boulders and gravel except at the rock ledge near midstream. Three navigation locks are on the east bank and the powerhouse is opposite, at the lower end of a wide forebay cut through the west bank. The roadway bridge to the dam proper crosses this forebay and its piers carry the ice skimmers to protect the intakes at the powerhouse.





General plan and cross section of the Dnieprostroy Dam on the Dneiper River, which is reported to have been destroyed by Russian engineers to check the German advance.

Possible methods of destruction

Destruction of this bridge and the intake structure above the powerhouse would destroy the powerhouse, which is part of the "scorched earth" policy of the Soviet government. This would turn a flood through that channel which would effectively check efforts to bridge the river for some time. The river has a flow ranging from 6,300 to 835,000 cfs., and a 20-ft. drawdown of the reservoir would add over 400,000 acre-ft. to the flood passing the dam.

Another alternative would appear to be mining and blowing up the central portion of the spillway working from the rock reef. It also would appear possible to load the operating gallery for a hundred feet or more, blowing off the crest, spillway gates and piers for a sufficient distance to prevent bridging the opening with a single span. The flood through this opening would effectively check pier construction for a long time.

Destruction of the navigation locks would not appear to be an effective check to crossing the river, but may have been done to prevent their use by the Germans should they gain control of the river.

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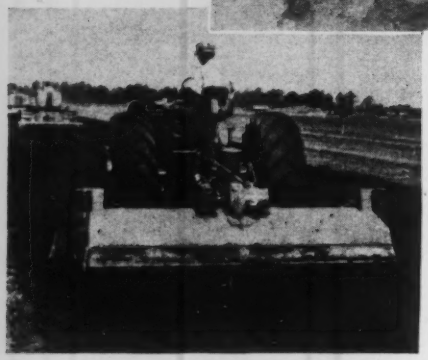
City of Tacoma to build two power dams

The city of Tacoma, Wash., has applied to the Federal Power Commission for a license to construct two hydroelectric developments on the Nisqually River in Thurston, Pierce and Lewis counties, Wash. The upstream development would consist of a 300-ft. high concrete arch dam, a storage reservoir with about 147,000 acre-feet usable capacity, a powerhouse with installed capacity of 50,000 kw., and a 110,000-volt transmission line about three miles in length. The work is known as the Alder Dam project.

The second project would consist of a concrete gravity diversion dam, known as La Grande Dam. This structure will be 200 ft. high to create a regulating reservoir of about 10,000 acre-feet capacity. A concrete-lined tunnel 14½ ft. in diameter and about 6,500 ft. long, a powerhouse with installed capacity of 64,000 kw., and a 34-mile, 110,000-volt transmission line are also included.

Soil-cement widens flying school runways



Plow at top controls depth of soil-cement treatment and turns over material to insure thorough mixing. Then pressure distributor above brings moisture to optimum content.

As third step rotary tiller follows spring tooth cultivator to mix cement and soil thoroughly.

Three contracting firms worked together to rush construction of 2[illegible],000 sq.yd. 6-in. soil-cement runways and aprons at U. S. Army Flying School No. 1 Avondale, near Macon, Georgia. Soil-cement was used for widening two 4,500-ft. long concrete runways and for a combined parking area-apron. The widening extended 75 ft. on each side of the 150-ft. landing strips. The apron, all new construction, is 450 by 2,400 ft.

The mixed-in-place method of construction was used after the work became organized and it was seen that this operation was feasible, economical and capable of producing the maximum daily demand. The three contractors, after an "education" period, processed from 12,000 to 16,000 sq.yd. of 6-in. soil-cement per working day. Both apron and runway widening were processed in alternate strips, 25 ft. wide, using 6 by 6-in. timber forms. These forms were removed when the intervening strips were constructed. The cement quantity was 9 percent by volume and it was distributed by hand after bags were spotted at specified intervals over the site. Part of the area received a surface enrichment of 4 percent by volume of cement added to the top 1 in. of the wearing surface. This was applied by a mechanical spreader and was well mixed just prior to final rolling. Dampened earth was spread over the processed areas during the moist cover period.

W. F. Scott & Co., Thomasville, Ga. had the apron contract on an equipment-rental basis and averaged 5,714 sq.yd. per working day, while 15 days of construction averaged 6,667 sq.yd. The MacDougall Construction Co., Atlanta, had one runway on a fixed-fee basis and averaged 3,665 sq.yd. per working day; and the W. L. Cobb, Decatur, Ga. had the other runway on a square yard basis and averaged 3,755 sq.yd. per working day.

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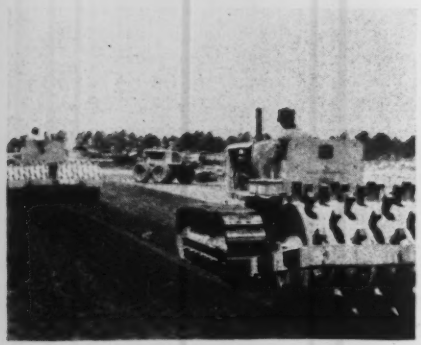
Since the foregoing job, D. W. Winkler placed soil cement paving at Windsor Locks, Conn., at an average speed of 7,800 sq.yd. per day and had a peak day of 16,241 sq.yd. At U. S. Flying School No. 6 at Albany, Ga., Hardaway Contracting Co. placed 18,[illegible] sq.yd. in one day (19 hours).

First compaction of soil-cement mixture is obtained by sheepsfoot rollers.



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Nail drag removes compaction planes prior to final rolling.

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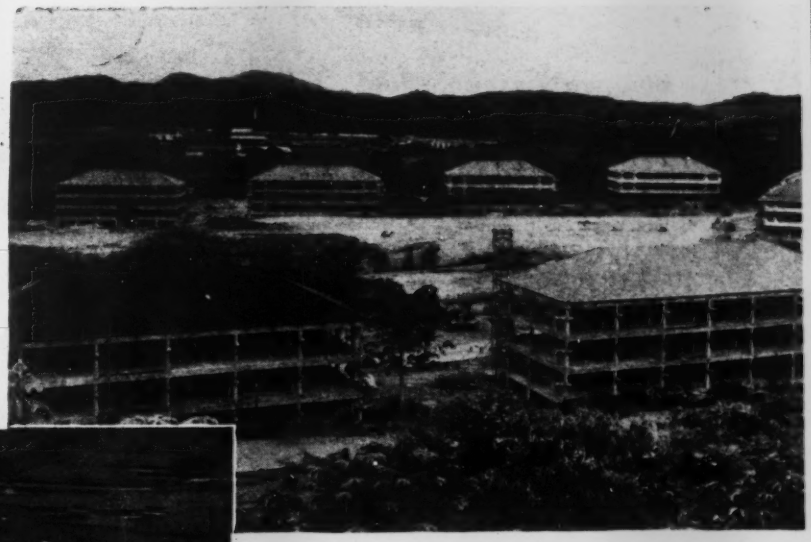

Concrete frame and tile roof barracks (above), at Fort Clayton, C.S., accommodate 150 men each.

Howard Field two-family non-commissioned officers quarters in the foreground of photo at left, are completely serviced with electricity and have metal furniture. Barracks fill the background.

Albrook Field, the Panama Air Depot, contains some of the largest structures in Panama. Although shortages of steel and steel erectors have hindered construction, the hangars, as lower view shows, are now approaching completion.

Despite the necessity for building while planning, whole cities are rising, rapidly and on schedule, in the Canal Zone. Permanent concrete and steel structures predominate, and all of the $70,000,000 program is being carried out by the Constructing Quartermaster of the Army.

Practically all construction material comes from the United States, 2,000 miles away with the accompanying necessity for scheduling well in advance of requirements and also for anticipating delays that may be caused by curtailed shipping facilities. Overloaded local docks, an inadequate railway, torrential rains, and equatorial heat have been some of the difficulties to overcome.

Tropical comfort is a built-in feature of Canal Zone construction. Ventilation is improved by facing buildings broadside to the prevailing winds and staggering the locations. Other details include termite protection and split stairways to halt ant invasions. Exterior and interior non-glare color schemes are also carefully chosen for psychological effects of coolness.

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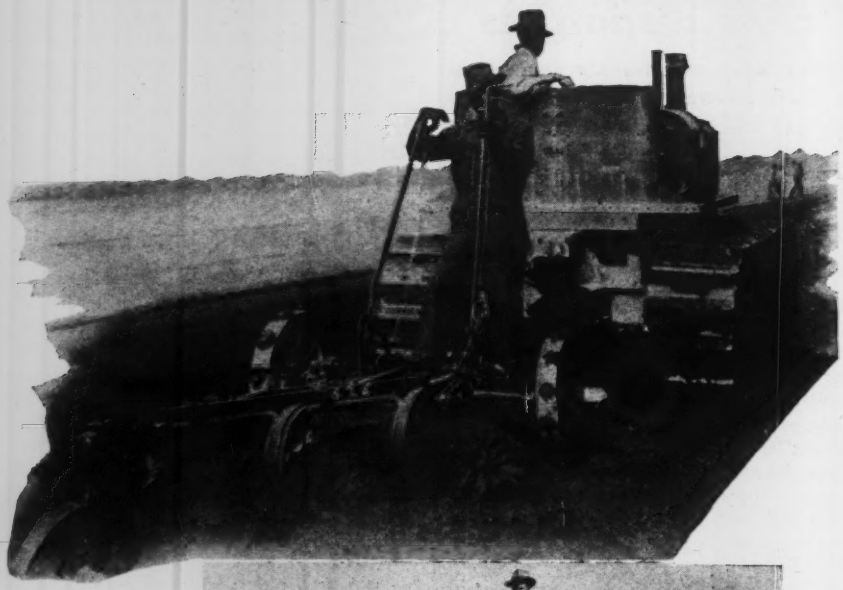

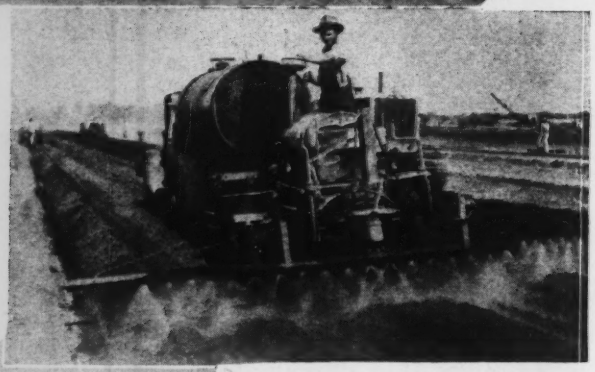

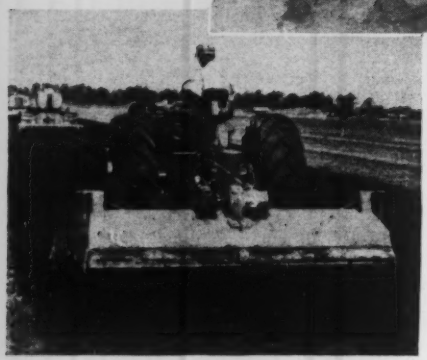

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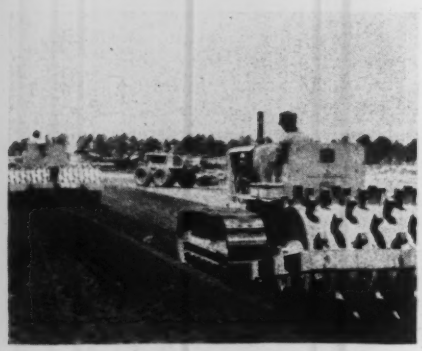

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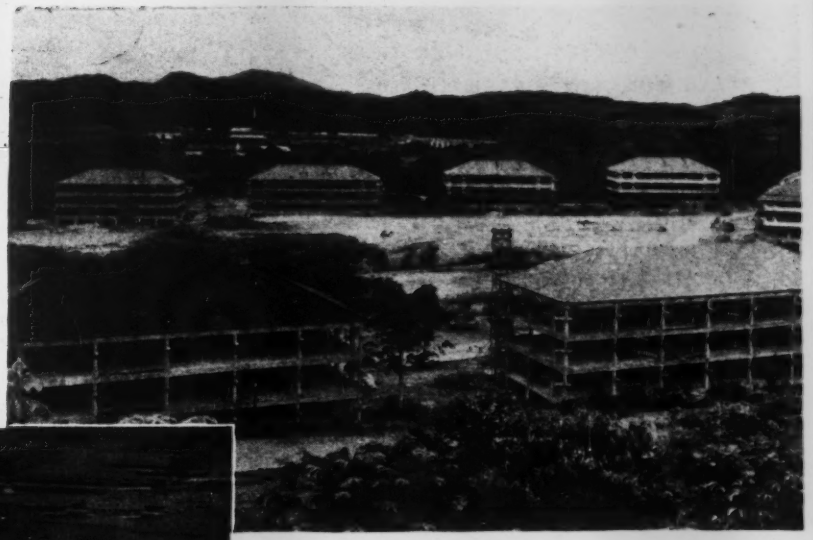

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New water supply for New Orleans studied

Growing unpalatability of water drawn from the Mississippi River due to increasing intrusion of salt water has resulted in preliminary studies by the New Orleans Sewerage and Water Board for obtaining fresh water from streams above Lake Ponchartrain. These tentative studies were revealed by the water supply board's opposition to an application of oil operators to discharge brine into the river. The permit was recently granted by the Louisiana Stream Control Commission despite the New Orleans opposition, but the operators were forbidden to return the brine to underlying sand stratas because of the possibility of damaging the Baton Rouge water supply.

Yearly increase in the flow of water from the Mississippi River via Old River and the Atchafalaya to the Gulf of Mexico, a shorter route than the main channel, plus storage of water in reservoirs on numerous Mississippi tributaries has served to aggravate New Orleans' water problems. Also, it is anticipated that the problem will become more acute. B. J. Haney, Jr., engineer spokesman for the New Orleans board, reported at the hearing that the critical period for the New Orleans water supply is about 140 days yearly, when the Mississippi flow at New Orleans decreases to 100,000 cfs. The maximum salinity experienced at New Orleans has been 381 ppm. of which 35 parts were estimated coming from upstream and the remainder from the Gulf of Mexico.

Included in the work of bringing a new water supply from north of Lake Ponchartrain would be a 50-mile aqueduct.

Relief model shows Mexico-U. S. boundary area

To facilitate the solution of international questions along the Mexico—United States border area, the International Boundary Commission, El Paso, Tex., has constructed a 4 x 15-ft. relief model to depict 533,000 sq. mi. or an area 384 mi. wide and 1,440 mi. long. A study of the available topographic maps indicated that topographic and cartographic features could be adequately portrayed on a horizontal scale of 1 to 500,000 or 1 in. about equal to 8 miles, and vertically on 1 to 75,000 or 1 in. about equal to 1 mile.

The model is composed of five 3 x 4-ft. panels mounted on an easel, and each panel is mitred so that joining the panels presents a continuous portion of the earth's surface.

It was possible to obtain a pressboard with a thickness corresponding to the contour interval, or a vertical scale of 1:75,000. A separate print of the base map was used for each contour and mounted on pressboard of the proper thickness. A copy of the base map of each panel was glued to the spherical base board and the surface of this map represented sea level elevation. Each contour was then carefully cut out with a cut awl and successively oriented on the map previously laid down, until all of the cut-outs had been placed in their proper position on the panel boards. Modeling clay was then applied over this built-up section.

All of the work incident to the planning and construction of the model was performed by regular personnel of the International Boundary Commission.

The picture shows the panel for the California area with the Los Angeles district at the left, and at the lower right hand corner the tip of the Gulf of California and the outlet of the Colorado River.

Graded rents adopted for many housing projects

Because defense activity in many cities has made it possible for numerous wage earners living in public housing developments to increase their incomes, many cities are adopting systems of graded rents, according to Administrator Nathan Straus of the USHA. Rents for a project in a mid-western city is given as an illustration of how the USHA graded rent system works. For a typical home with three bedrooms, which will accommodate a family of five to seven people, the following monthly rents will be charged families with the yearly incomes indicated:

Family Incomes	Rent (including utilities)
less than $750	$14.00
$750—$949	17.00
$950—1149	21.00
$1150—1349	25.00
$1350—1620	33.00

BRIEF NEWS

THE PENNSYLVANIA highway department is planning to advertise during the fall and winter months for bids on an aggregate of $20,800,000 of projects that department has announced. More than $12,000,000 of the new construction will be financed entirely by the department with the remainder financed by federal-aid funds.

AN ENGINEERING SCHOOL is included in the Central University of Nicaragua recently established at Mantagua, Nicaragua. The new school, which is sponsored by the federal government of that country, will bring the number of Nicaraguan universities to three. The others are at Leon and Granada.

DIRECTOR HAL G. SOURS of the Ohio state highway department has announced that all unnecessary projects requiring the use of steel would be eliminated from that state's highway construction program in order to save as much metal as possible for defense construction. Only absolutely essential bridge work will be undertaken during the emergency, Mr. Sours reports.

FORMERLY KNOWN as the Bulls Head Dam, the project on the Colorado River halfway between Boulder and Parker Dams is now to be known as Davis Dam, according to an announcement by Secretary Ickes. The name is in honor of Arthur Powell Davis, director of the Reclamation Service from 1914 to 1923. Mr. Davis died in 1933.

First federal funds allotted for community centers in defense areas

Work to be carried out by general contract by FWA's Defense Public Works division with standard plans for most part. With jobs not easily standardized, design will be prepared by local firms.

First allotment of funds out of the $150,000,000 community facilities appropriation were made last week, covering 22 of the 26 projects approved by the President Aug. 18 (*ENR*, Aug. 21,1941, p.2). The community facilities program is intended to give federal aid in provision of municipal requirements to meet defense-expanded needs.

Of the 22 allotments, 15 are for community buildings and military recreation centers which will be built entirely with federal funds. Standardized designs for these buildings are being developed in the Washington office of the Defense Public Works (DPW) division of the Federal Works Agency. Contracts for their construction will be awarded by competitive bidding by the regional DPW offices. DPW has authority to negotiate contracts but will not use it if it can get satisfactory bids.

In the future, when DPW carries out projects directly, which cannot be reduced to a standardized design, designs will generally be prepared by local architects and engineers retained on a fixed-fee basis by the regional offices.

The 15 projects to be partially or wholly federally financed are as follows:

Location	Allotment
Wrightstown, N. J.	$82,195
Pointville, N. J.	82,195 (first job)
Pointville, N. J.	82,195 (second job)
Rantoul, Ill.	125,000
Waukegan, Ill.	94,950
Watertown, N. Y.	70,000
Fayetteville, N. C.	75,000 (first job)
Fayetteville, N. C.	75,000 (second job)
Fayetteville, N. C.	155,000 (third job)
Spring Lake, N. C.	21,820 (first job)
Spring Lake, N. C.	21,820 (second job)
Wilmington, N. C.	150,000
Corpus Christi, Texas	80,000
Virginia Beach, Va.	75,000
Newport News, Va.	80,000

Note: First three projects are community buildings and remaining twelve recreation centers.

The remaining seven projects which have received allotments are being handled by local sponsors with the aid of federal grants. Grants range from 100 percent on a $35,000 improvement to a recreation center in Lockport, Ill., to about 46.5 percent on a school addition in Wayne County, Mich. On non-federal projects of this type, design and contracting will be handled by the local sponsor subject to review by the regional DPW office.

Details of the 7 non-federal projects are given in the accompanying table.

Location	Project	Total Cost	DPW Grant
Rockford, Ill.	Recreation center	$35,000	$35,000
Leesville, La.	Sewerage plant	424,596	339,596
Gratiot Township, Mich.	School	83,900	58,900
Battle Creek, Mich.	School addition	198,250	109,650
Livonia & Nankin Townships, Mich.	School addition	27,510	12,860
Hattiesburg, Miss.	Schools	400,000	215,000
El Paso, Tex.	Recreation center	38,650	38,650

Meanwhile, 27 more projects have been approved by the President, bringing the total of approved projects to about $13,000,000.

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New York code changed for high strength bars

With the signing by the mayor on Aug. 15 of local laws 67, 68 and 69—1941, New York City's building code was amended to eliminate the preferential treatment it had accorded high yield strength concrete reinforcing of the twin-twisted-and-stretched type known as Isteg. The code had permitted working stresses of 27,000 and 30,000 psi. for bars of this type having minimum yield points of 50,000 and 60,000 psi. respectively; and it also had permitted a 15 percent increase in working stresses (both in bending and in compression adjacent to supports) for concrete reinforced with these special bars.

The revisions that the new local laws introduce into the code eliminate entirely the increase in concrete working stresses when high yield strength bars are used; and they have the effect of reducing the steel stresses to a maximum of 24,000 psi. The actual wording of the latter provision is: "When the yield point is at least fifty thousand pounds per square inch and controlled concrete is used, the permissible tensile strength may be forty percent of the yield point, but shall not exceed twenty-four thousands pounds per square inch, except that in one-way slabs of spans not exceeding twelve feet, with required temperature reinforcement, the permissible stress in the main reinforcement may be fifty percent of the yield point but shall not exceed thirty thousand pounds per square inch for reinforcement with areas not exceeding 0.14 square inch, and twenty-five thousand pounds per square inch for reinforcement with areas not exceeding 0.21 square inch."

All reference to "twin bars (cold twisted and stretched)" is eliminated in favor of the phrase "high yield strength reinforcing steel." A further change places a restriction on the use of high yield strength steel in compression by requiring that bars "shall be of a type approved by the board." Also when high yield strength bars are used the unit stress given by the formula nf_c is to be multiplied by the ratio that their modulus of elasticity holds to 30,000,000.

The revisions represent the culmination of a long and sometimes bitter controversy among structural engineers in New York, including diverse interpretations of test programs, principally at Columbia, Lehigh and Princeton universities. As finally drawn, the revisions correspond to recommendations made by a special committee of the New York Structural Engineers Society, although at least two of the committee members disagreed and did not sign the report.

WASHINGTON HIGHLIGHTS

SUBSTANTIALLY all the defense housing money so far made available has now been allocated to specific projects, and it appears probable that the President will ask Congress within a few weeks for perhaps $150,000,000 more. Of about $367,000,000 available to the Federal Works Administrator for defense housing, $343,000,000 has been parceled out.

Last week Works Administrator Carmody announced that he had insufficient funds to carry out six projects which had been recomended by Housing Coordinator Palmer and approved by the President. Mr. Carmody said sites would be selected and the projects got ready for construction but would not actually be carried out.

IN AN EFFORT to increase the supply of reinforcing bars, Price Administrator Henderson has modified the rules under which railways may sell discarded rail to re-rolling mills for conversion into bars. The price of scrap steel was fixed some months ago on a basing point system; i.e. the delivered price could not exceed the fixed price at the nearest basing point plus transportation from the basing point to point of delivery. As regards a railroad not passing through a basing point, it could therefore easily work out that it would be more profitable to sell rail to a nearby steel mill for melting than to sell it to a perhaps distant re-roller. OPM considers it undesirable to degrade rail steel in this way.

The new rule permits railways to sell rail to re-rollers at a price equal to the average price it obtained, f.o.b. its own lines, between Sept. 1, 1940 and Jan. 31, 1941, plus actual transportation. In effect, the re-rollers are being permitted to offer a higher price in order to get preference in the purchase of rail.

FWA photo

Plans for USHA's defense housing project at Dumas, Tex., are studied by CHARLES S. LAMBIE (left above), general contractor for the project, and NELSON CORY, project engineer for the work. One hundred prefabricated dwellings are under construction for industrial workers at a nearby zinc plant.

MEN AT WORK

Details of a 650-mile, $300,000,000 express road and parkway program for the state of Michigan are discussed by the three engineers at the right. Left to right they are: JOHN K. NORTON, road engineer of Wayne County Road Commission; G. DONALD KENNEDY, state highway commissioner, and GEORGE EMERY, Detroit city planner. They are inspecting a model showing a proposed Detroit cross-town highway.

A total of 73 years of service with the city of Atlanta, Ga., is represented by the group below. Left to right they are: WM. A. HANSELL, assistant chief of construction in charge of sewers, who has served Atlanta 48 years; REX LEFEVRE, assistant chief of construction in charge of streets, with the city 12 years; and W. P. GRESHAM, assistant superintendent of streets, 13 years.

JOHN OMAN, JR. (left above) of the Oman Construction Co., Nashvil Tenn., and H. K. FERGUSON, president, H. K. Ferguson Co. Cleveland a New York, discuss plans for the Wolf Creek Ordnance Plant shell load project at Milan, Tenn., now under construction by both organizations. F purposes of convenience, the two interests have formed the Ferguson-Oman C for the duration of this job.

In charge on soil cement construction for runway widening and aprons at U. Army Flying School near Macon were: WM. F. OTTINGER, JR. (left above U. S. Engineer Department; CHARLES B. CONE (center), testing engine J. B. McCracy Engineering Corp.; and DONALD THOMAS, superintende for W. F. Scott & Co., contractors on part of the work.

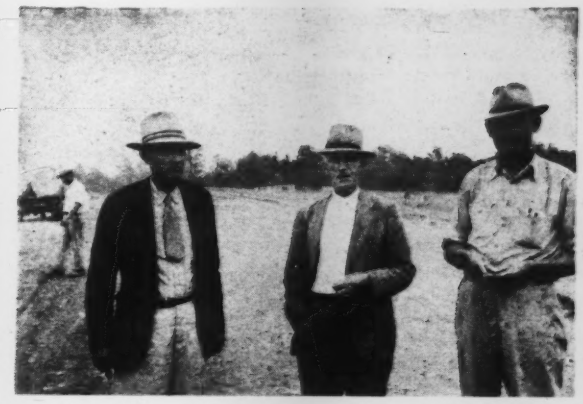
As associate highway bridge engineer for the Public Roads Administration for District 3, J. WAYNE COURTER (right) does lots of traveling from his Denver headquarters. He has been with PRA for 12 years and at Denver for the last 10 years.

the sagebrush-covered prairies of the Southwest to the e forests of Maine came the three pipeline engineers above upervise construction of the Portland-Montreal job. From to right they are: GEORGE LEE, assistant chief engineer, and Pipe Line Co.; H. L. DAVIS, general superintendent, iams Bros. Corp., Tulsa, Okla.; and H. M. STEVENSON, chief neer, Portland Pipe Line Co.

Blueprints of FWA's defense housing under construction by PBA for Army enlisted personnel at Ellington Field, Houston, are studied by the engineers in charge. Left to right they are: Engineer H. B. ROSE, Contractor THOMAS TELLESPEN and Constr. Supt. F. E. CALE.

Lumber for a Camden, N. J. prefabricated housing project gets the critical "once-over" from FWA Inspector HAROLD G. TEST at left. Prior to this assignment Mr. Test was project engineer for WPA in the Camden area.

HESTER (left above), president Okla- Contracting Co., and DAVE WILLIAMS, president, Williams Bros. Corp., Tulsa, orking "way down East" this summer as supervise operations on their respective cts to complete the Portland, Me. to eal oil pipeline in record time.



On WPA paving work connecting Fayetteville with Ft. Bragg, North Carolina, HENRY G. RAGLAND, left above, is superintendent for the WPA. L. G. GREDE, center, is resident engineer and S. S. HURT is inspector for the North Carolina highway department, sponsors of the project.

Speedy progress on the drydock under construction at the U. S. naval base in San Diego is attributed, in considerable degree, to close cooperation between the Navy's C.E.C. and the contractor's organization. The two men entitled to major credit for this effective work are Lieut.-Comdr. Alexander Martin (wearing cap at left), C.E.C., U. S. Navy, and Ralph Keenan, project manager for the Pacific Bridge Co. Here these two are in informal conference; Pacific Bridge, at the moment, seems to have the floor.

MEN AND JOBS

A. C. Clarke, former assistant chief engineer, has been appointed chief engineer of the Baltimore & Ohio R.R., succeeding H. A. Lane, deceased. He was graduated from Purdue University with a civil engineering degree, and his first railroad experience was with the Lake Shore & Michigan Southern R.R. He was connected with the Canadian Government survey and retracement in Saskatchewan in 1908, and later became chief of the bureau of information of the agricultural department of the province. In the next few years he was assistant engineer on base line and exploration work in Saskatchewan, had charge of field work for one of the large engineering companies of western Canada at Regina, and devised a cost system for the department of the street commissioner of Winnipeg. Mr. Clarke became associated with the B.&O. in 1915 in the operating department. From the commercial department he was promoted to assistant engineer of surveys, then to district engineer at Pittsburgh in 1918, and in 1930 was advanced to assistant chief engineer.

A. C. CLARKE

Lieut. W. S. Davis of Philadelphia has been graduated from the Army Industrial College, Washington, and assigned to the Army Chief of Engineers' Office.

Walter F. Gessaman, building contractor, has been elected chairman of the Monroe Port Commission, Monroe, Mich. The commission operates the city lake port and harbor terminal.

Harold Monson, South Dakota highway resident engineer at Mobridge, has resigned to accept a position with the W. H. Noel Construction Co. at Jamestown, N. D., as a construction engineer.

Horace Johnson, Glendive, Mont., who has been with the Utah Construction Co., of San Francisco, has been transferred to Honolulu to work on the Samoa Island defense project as assistant to the construction engineer.

Leslie A. Pettus, who as city engineer at St. Louis, Mo., supervised the master plan of development for Lambert-St. Louis Municipal Field, has been employed by the city of Oklahoma City, Okla., to supervise an important phase of a $15,000,000 airport depot at Oklahoma City.

F. C. Smith, formerly district engineer for the Nebraska State Highway Department with headquarters at McCook, has been named equipment engineer and will be located at Lincoln.

William H. Woodward, chemist and testing engineer of the Springfield (Mass.) street department, who has been connected with that branch of the city's service since 1916 except for a brief period spent in India with Standard Oil, has been appointed deputy superintendent of streets. He succeeds **Arthur H. Woodward,** retired.

Robert Henry, superintendent of the water department at Ramseur, N. C., for the past four years, has resigned to become superintendent of the water department at Kernersville, N. C. **W. W. Adkins,** city chemist at Asheboro, N. C., is devoting part of his time to the Ramseur water department until Mr. Henry's successor is named.

Albert H. Baum, Jr., partner in the architectural and engineering firm of Baum and Froese, St. Louis, Mo., has been appointed to the post of building commissioner for St. Louis.

F. C. Bartholomew has been appointed assistant city engineer at Great Falls, Montana, succeeding **J. L. Sinclair.** At one time Mr. Bartholomew was employed as construction engineer by the Great Northern R. R. Co. and, until the appointment, was district engineer for the state highway commission.

Edward T. Levitt, New York University alumnus, formerly engineer and construction superintendent for Lustig & Weil, general contractors, and more recently with the constructing quartermaster at Fort Hamilton, N. Y., has been called to active duty as a lieutenant, Civil Engineering Corps, U. S. Naval Reserve. Lieut. Levitt has been assigned as civil engineer officer attached to United States Naval Mobile Base Hospital No. 2.

O. W. Kochtitsky, has been named associate sanitary engineer at the area administration office that has been established by TVA in connection with the construction for national defense purposes of the $20,000,000 Appalachia Dam and hydro-electric project near Murphy, in western North Carolina.

Capt. Dewey B. Lyons, who has been stationed at the Plum Brook Ordnance Works, at Sandusky, Ohio, has been ordered to report to Morgan Field, Ky., where he will be constructio[n] quartermaster in charge of [b]uilding a cantonment.

Walter E. McKibben, engine[er] with the Washington state highway d[epa]rtment, stationed at Colville for the [la]st three years, on Sept. 11 will assu[me] duties as county engineer for Steven[s] County, with headquarters at Colville. He will succeed **Clyde A. Heberling,** who resigned after 25 years with the office to manage a fruit farm.

B. P. Thomas of Seattle, Wash., chief engineer for the Inter-County River Improvement association of that city, has resigned, effective Sept. 15, to accept a national defense job with the U. S. Army Engineers at Seattle.

Earl B. Lockridge, chief engineer of the Indiana State Highway Commission, has been ordered to report for duty with the U. S. Army as assistant to the constructing quartermaster of the Fifth Zone. He is a lieutenant colonel in the engineering corps. He would have completed 22 years of continuous service with the highway commission on Sept. 9.

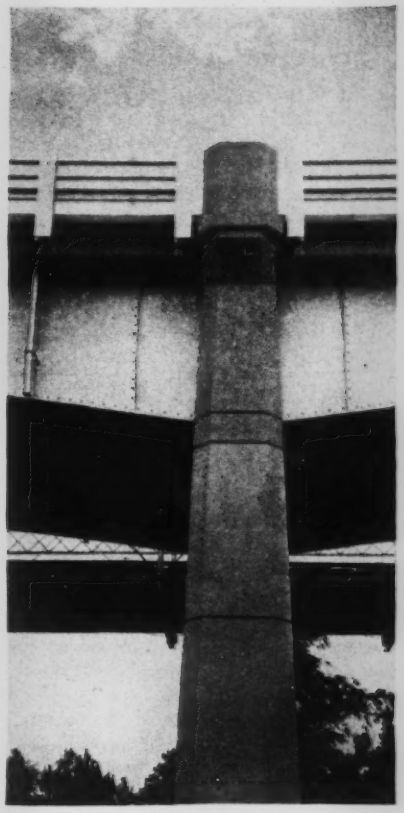
James A. McConnell has been appointed to be northeastern regional director for the Public Works Administration with offices at Boston. His responsibility will cover projects including school, sanitary, hospital, and recreational facilities, waterworks, pipelines and street construction. After twelve years in the South and Southwest in engineering and construction business, Mr. McConnell joined the PWA organization in Massachusetts in 1934. Mr. McConnell will first consider proffered projects and make his recommendations to **Col. M. E. Gilmore,** commissioner of public works.

J. A. McCONNELL

C. F. Gore, first division engineer for the North Carolina Highway and Public Works Commission, has been transferred from Weldon, N. C., to Roanoke, N. C., along with the headquarters of the division. Division maintenance engineers and draftsmen also were affected by the change.

James C. Clulo has resigned as Dickinson County (Mich.) road engineer to enter private employment.

Fred K. Derby has resigned as city engineer, Scranton, Pa., to devote his entire time to his candidacy for the Republican mayoralty election in that city.



New bridge over Catawba River in South Carolina

A new H-15 loading, 24 ft. wide, highway bridge is now carrying U. S. 21 over the the Catawba River between Rock Hill, S. C. and Charlotte, N. C. The bridge is 970 ft. long, principal members being two 435 ft. girders continuous over 3 supports with a maximum span of 120 ft. The structure replaces an adjacent through truss bridge too narrow and light for present traffic.

An esthetic feature of the new structure is continuation of the pier lines to the top of the rail, as shown in photo at right. The concrete pier is continued on the same batter to the sidewalk line, and capped with a concrete post. This treatment relieves the usual harshness at the junction point of substructure and superstructure.

J. S. Williamson is chief highway commissioner of South Carolina and W. J. Gooding is bridge engineer.

MEETINGS

PAN-AMERICAN HIGHWAY CONGRESS, fourth exposition, National Stadium, Mexico City, D. F., Sept. 15-24.

ROADMASTER & MAINTENANCE-OF-WAY ASSOCIATION, annual meeting, Stevens Hotel, Chicago, Ill., Sept. 16-18.

INDUSTRIAL RESEARCH INSTITUTE, fall meeting, Hotel Statler, Detroit, Sept. 26-27.

AMERICAN Association of State Highway Officials, annual meeting, Statler Hotel, Detroit, Mich., Sept. 29–Oct. 2.

NATIONAL SAFETY CONGRESS AND EXPOSITION, National Safety Council headquarters, Chicago, Ill., Oct. 6–11, 1941.

FEDERATION OF SEWAGE WORKS ASSOCIATIONS, 2nd annual convention, Hotel Pennsylvania, New York, N. Y., Oct. 9–11, 1941.

FEDERATION OF ARCHITECTS, ENGINEERS, CHEMISTS & TECHNICIANS, 6th national convention, Detroit, Mich., Oct. 10-12.

AMERICAN PUBLIC HEALTH ASSOCIATION, Atlantic City, N. J., Oct. 13–17, 1941.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION, annual convention, The Greenbrier, White Sulphur Springs, W. Va., Oct. 14–17, 1941.

AMERICAN SOCIETY OF CIVIL ENGINEERS, fall meeting, Palmer House, Chicago, Ill. Oct. 15–17.

AMERICAN WELDING SOCIETY, Bellevue-Stratford Hotel, Philadelphia, Oct. 19–24, 1941.

AMERICAN PUBLIC WORKS ASSOCIATION, 47th annual conference, Roosevelt Hotel, New Orleans, La., Oct. 26–29, 1941.

NATIONAL COUNCIL STATE BOARDS OF ENGINEERING EXAMINERS, Hotel Pennsylvania, New York, N. Y., Oct. 27–30.

INDUSTRIAL HYGIENE FOUNDATION, 6th annual meeting, Mellon Institute, Pittsburgh, Pa., Nov. 12-13.

REGIONAL AND LOCAL MEETINGS

NEW ENGLAND WATER WORKS ASSOCIATION, Hotel Statler, Boston, Mass., week of Sept. 23-26.

AMERICAN WATER WORKS ASSOCIATION, Minnesota Section, Minneapolis, Oct. 9–11; New Jersey Section, Atlantic City, N. J., Oct. 16–18.

ILLINOIS WATER PLANT OPERATORS, 9th annual fall meeting, Leland Hotel, Springfield, Ill., Oct. 28–29.

WATER AND SEWAGE WORKS CONFERENCE, 7th annual meeting, Aberdeen, S. D., Oct. 28–29, 1941.

TEXAS SECTION, Am. Soc. of C. E., fall meeting, Fort Worth, Oct. 31–Nov. 1.

ENGINEERING SOCIETY OF WESTERN PENNSYLVANIA, annual conference, William Penn Hotel, Pittsburgh, Nov. 3-4.

NORTH CAROLINA SECTION, American Water Works Association, High Point, N. C., Nov. 3-5.

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Mexico to improve national railway

Reconditioning of the National Tehuantepec Ry., which crosses the Isthmus of Tehuantepec from Puerto Mexico on the Gulf of Mexico to Salina Cruz on the Pacific Coast, has been ordered by President Manual Avila Camacho of Mexico. The project, which is over 200 miles long, will cost $2,600,000 and is to be started before the end of the summer. It is estimated that the work can be performed within less than a year.

In ordering the work to be carried out, President Camacho explained that the connection is of great value from the defense angle.

Anti-tank range under construction at Fort Dix

An electrically operated anti-tank range, one of the first of its kind in the country, and which when in operation will present targets simulating the swift and often eccentric movements of tanks in actual combat, is being built by the Work Projects Administration at Fort Dix, N. J. More than two miles of three-rail narrow-gauge railroad will be built on a 1,500-acre tract of rolling ground, which is already being cleared. The railroad will be roughly in the shape of a figure eight about 800 yards across at its widest point and about 1,000 yards long. In addition to the outlining tracks there will be various curving tracks and switches and a straight road cross-wise through the middle.

Low cars on which the targets will be mounted will be operated from a control tower, where the officer in charge will be able to direct the movements of the target. He will also be able to stop the target like a tank with all brakes applied, back it up or switch it quickly at a sharp angle from its course.

Artillerymen will fire at the targets at distances ranging from 400 to 1200 yards, considered the effective firing range of tanks, with 37-millimeter shells.

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California water district becomes operating utility

Last month the Metropolitan Water District of Southern California became an operating utility. This change results from completion of construction of the 340-mile Colorado River Aqueduct and other work carried out since Dec. 24, 1932. The district now has in operation one of the largest domestic water supply systems in the United States, serving Los Angeles and twelve other southern California municipalities. The 1,500 sec. ft. aqueduct includes five pumping plants with a total lift of 1,616 ft.

Officers of the new operating utility include the following: Julian Hinds, general manager and chief engineer; J. M. Gaylord, chief electrical engineer; R. B. Diemer, chief operation and maintenance engineer; Don J. Kinsey, assistant to the general manager; R. A. Skinner, office engineer; R. M. Peabody, mechanical engineer; C. C. Elder, hydrographic engineer; T. T. Walsh, field superintendent for the pumping plants; Robert N. Allen, maintenance engineer for the aqueduct and transmission lines; and W. W. Aultman, operating engineer for the softening and filtration plant. Franklin Thomas, head of the department of civil engineering of the California Institute of Technology, continues as vice-chairman of the board of directors.

JOBS OF THE WEEK

DEFENSE HOUSING, Jacksonville, Fla.
George D. Auchter Co., Duval Engineering and Construction Co. and Baston Co., all of Jacksonville, Fla., have been awarded a joint contract by the Navy Department, Washington, D. C. for a defense housing project at Jacksonville. Estimated cost of the work is $1,500,000.

ASSEMBLY AND TESTING PLANT, Schenectady, N. Y.
James Stewart & Co., New York, will construct an assembly and testing plant for manufacturing radio equipment for the General Electric Co., Schenectady, N. Y. Estimated cost of the project is $1,000,000. The Defense Plant Corp., Washington, D. C., will finance the undertaking.

RADIO TUBE FACTORY, Schenectady, N. Y.
The Austin Co., New York got the contract from the General Electric Co., Schenectady, N. Y., for constructing an industrial plant to manufacture radio tubes. Estimated cost of the plant which will be constructed with company funds, is $1,000,000.

DEFENSE HOUSING, Hatboro, Pa.
Anthony P. Miller, Inc., Atlantic City, N. J. was low bidder for constructing a 300-unit defense housing project for the Public Buildings Administration, Washington, D. C., with a bid of $1,198,000 on a 90-day basis and $1,186,000 on a 130-day basis.

AIRPORT PAVING, Houston, Tex.
Gulf Bitulithic Co., Housong, Auston Road Co., Dallas, Tex. and Bitulithic Co., Dallas, were awarded a supplementary contract for the grading, draining and concrete paving work at Ellington Field. The work is being done by the U. S. Engineers, Washington, D. C. under terms of a $1,877,795 contract.

DEFENSE HOUSING, Center Line, Mich.
O. W. Burke, Co., Detroit, Mich. will construct the defense housing project for the U. S. Housing Authority, Detroit, Mich. under terms of a $1,893,800 contract. Sarrinen & Swanson, Birmingham, Mich. are architects for the project.

PULP MILL, Chandler, Que.
Gasperia Sulphite Co., Chandler, with its own forces will build an extension to a pulp mill. Estimated cost of the work is $500,000. E. G. Chambers, owner, is engineer for the undertaking.

MECHANICS SCHOOL, Wichita Falls, Tex.
Robert E. McKee, El Paso, Tex. has been awarded a $7,555,565 supplemental contract for a mechanics aviation school, including barracks, messhalls, hangars, etc., at Wichita Falls, Tex. The work is being done by the War Department.

RESIDENTIAL HOUSING, Philadelphia, Pa.
M. Shapiro & Son Construction Co., New York, will build 1,000 residences for the Philadelphia Housing Authority under terms of a $3,664,750 contract.

AIRPLANE FACTORY, Niagara Falls, N. Y.
The Austin Co., Cleveland, O. will construct the additional buildings for an airplane plant for the Bell Aircraft Corp., Buffalo. Estimated cost of the work is $4,300,000. The Defense Plant Corp. will finance the undertaking.

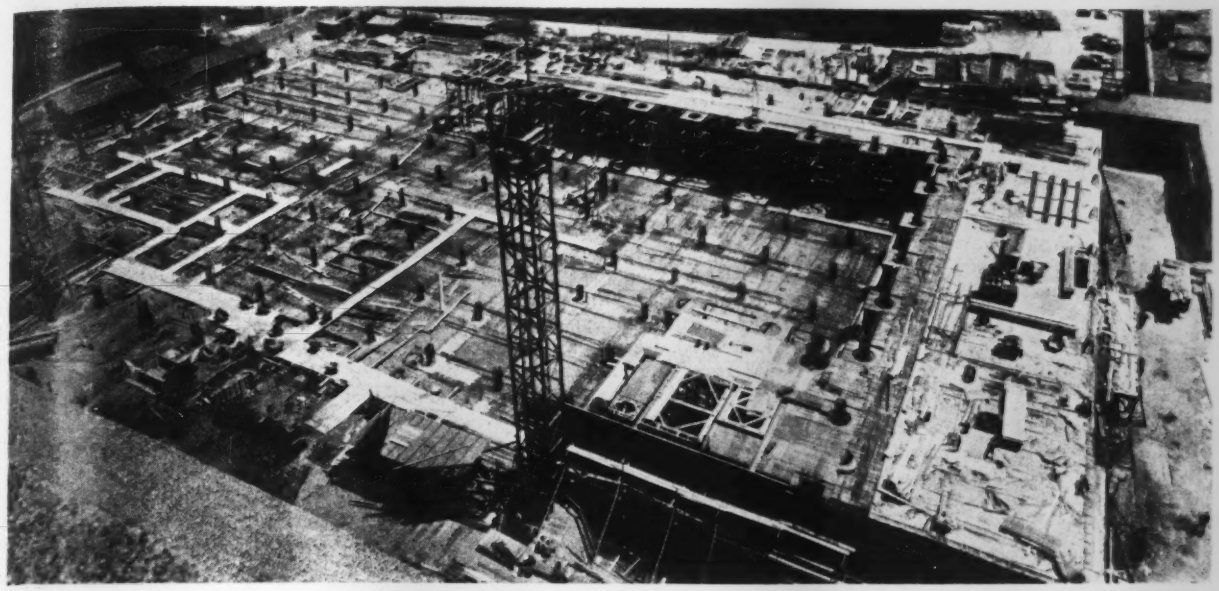
STEEL PLANT, Pittsburgh, Pa.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. will build by separate contracts a $1,000,000 1 story steel plant, including runways, soaking pit, etc. C. E. Littler, Pittsburgh, is the company's chief engineer. The structural steel fabrication contract has been awarded to Fort Pitt Bridge Works, Pittsburgh.

SHIPWAYS, Los Angeles, Calif.
The United States Maritime Comn., Washington, D. C. awarded the contract for four shipways, shops and equipment to the Consolidated Steel Corp., Los Angeles, Calif. The work is estimated to cost $4,000,000.

BANK, Dallas, Tex.
Mercantile National Bank, Dallas, Tex. will construct a 30-story fireproof bank and office building by separate contracts. The undertaking is estimated to cost $2,500,000.

ARMORED DIVISION CANTONMENT, Santa Marie, Calif.
MacDonald & Kahn, San Francisco, Calif. and J. F. Shea Co., Inc., Los Angeles, Calif. will construct under a joint contract an armored division cantonment at Santa Maria-Lompoc for the Constructing Quartermaster, U. S. Army. The work is being done under a $17,382,682 contract. Barnard & Jewett, Los Angeles, are engineers for the project.

NOTE—Additional bidding and contract news on over 800 projects large and small appear in the Construction News Section beginning on page 16.

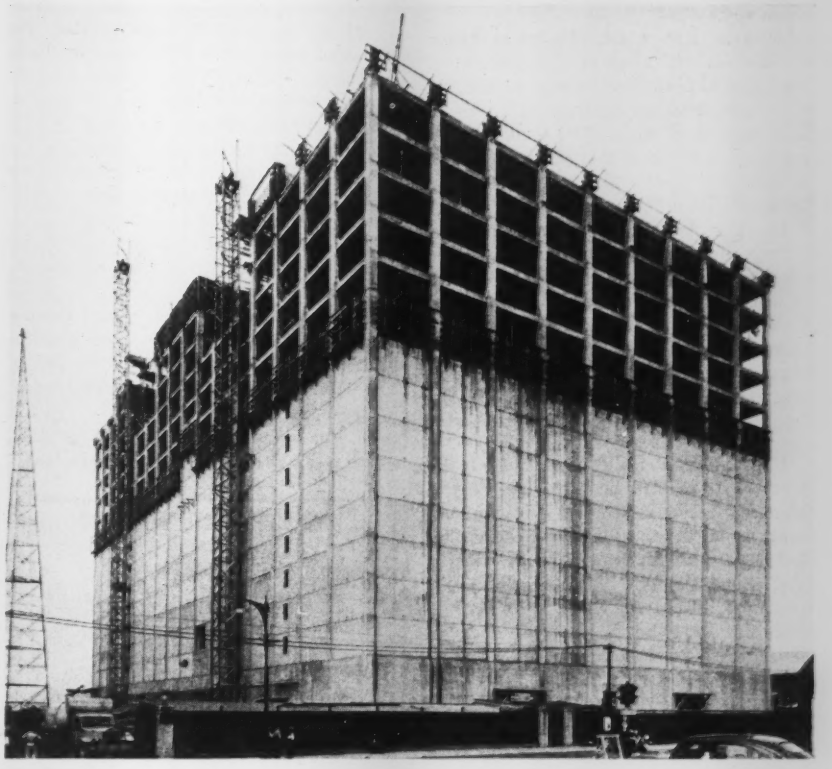


Each 3 days added another story at this job

Construction of more than 21 acres of floor space in 48 working days has been the record on the new 16-story storehouse and office building at the Brooklyn (N. Y.) Navy Yard Reservation, according to J. Archer Turner, president of the Turner Construction Co., New York, general contractors for the project. This record was made despite a 3-day loss due to an electricians' strike and 4½ days lost because of rain. In addition, the roof for the reinforced-concrete structure was completed a month ahead of schedule. The top photo was taken but ten weeks before that at the right.

Each of the first 15 stories measures 183x343 ft. and the last 60x183 ft., exclusive of machinery and elevator space. The structure is featured by the absence of windows on the lower 11 floors, which are for storage purposes.

The building was designed by the Navy's Bureau of Yards and Docks, and is being constructed under the direction of Admiral Ben Moreell, chief of the bureau, Capt. William H. Smith, officer in charge, and Lieut. Comdr. Frank A. Rossell, resident officer.



City must pay damages for shutting off water

On Aug. 27 the superior court of Montreal, Que., ordered that city to pay the Holdsworth Co., Ltd., $717 for damages in cutting off the firm's water supply June 27, 1940. The company had sued the city for $1,991, including $1,150 for the alleged loss of a customer. It was claimed that the action of the city in turning the water off caused the firm to dye certain materials darker than desired.

The trouble, as reported at court, originated in a conversation between the city's foreman and a company representative about turning off the water for a few hours. The company employee was somewhat deaf and had little knowledge of the English language. The company's representative claimed he had made known the fact that it would be necessary to continue water service for another two hours, while the foreman stated he had understood that it would be all right to stop the flow at once and to keep the supply shut off for two hours. Following the conversation the water was cut off almost immediately.

OBITUARY

GORDON S. MEEK, 67, president and general superintendent of the Pittsburgh & Conneaut Dock Co., Conneaut, Ohio, died Aug. 23 at Lexington, Ky. Mr. Conneaut, a civil engineering graduate of the Case School of Applied Science, worked as engineer on the construction of the Conneaut docks and in 1906 went to Fairport, Ohio, as engineer in charge of the construction of the Fairport dock. He was also president and general manager of the Pennsylvania & Lake Erie Dock Co. at Fairport.

H. C. WEBSTER, former president of the Engineering Society of Wisconsin, and engineer for three townships of Milwaukee County, Wis., died Aug. 27 at Milwaukee.

R. F. UNIACKE, former chief engineer of the Board of Railway Commissioners of Canada, died at Toronto, Ont., Aug. 24 at the age of 83.

AMOS H. POTTS, 62, district manager of the Portland Cement Association at Los Angeles for 15 years, and prominent in the construction industry of southern California, died Aug. 27. Following several years of railroad engineering work in southern California, he joined the Portland Cement Association as engineer in the Los Angeles office in 1923, and became district engineer in 1926. More recently he was given the title of district manager, with supervision of the association's work in southern California and Arizona. Mr. Potts was active in Los Angeles civic affairs and particularly the construction industry section of the Chamber of Commerce.

DANIEL DANA JACKSON, head of the Department of Chemical Engineering at Columbia University since 1918, and an authority on water supply and sanitation, died Sept. 1 at Mattituck, N. Y. He was chief chemist of the department of water supply of Brooklyn, N. Y. from 1897 to 1902. In 1904 he became director of laboratories for the New York Department of Water Supply, Gas and Electricity, and held that post until 1912. At the time of his death he was a member of the advisory committee of the New York health department.

LIEUT. J. M. SMOOK, 43, of the U. S. Coast and Geodetic Survey, died Aug. 27 at Oakland, Calif. In May of 1940 he succeeded Commander R. R. Lukens, as inspector of the San Francisco District. He was a civil engineering graduate of Cornell University.

H. LYLE SMITH, 42, former resident engineer for the Arkansas Department of Highways, died Aug. 28, at Little Rock, Ark. Mr. Smith had retired from the highway department because of ill health.

JOHN CARDEN ALBRIGHT, 49, civil engineer, died Aug. 27 at Petersburg, Va.

GEORGE W. FARNY, consulting engineer of Morris Plains, N. J., died Sept. 1. He built the first copper electrolytic plant in the Ural Mountains in the U. S. S. R. for the Bogoslov Mining Co. and also the first incinerator plant for the city of Leningrad. He was a member of the New Jersey State Planning Board for ten years, and a former vice-president of the National Highways Association.

CHARLES LESSER, 77, architectural engineer, died Aug. 21 at Milwaukee, Wis. He was a member of the firm of Lindl, Lesser & Schutte.

USHA Philadelphia Jobs awarded on negotiation

An error occurred in the item reporting the award of a contract for three defense housing projects by the Philadelphia Housing Authority in the "Jobs of the Week" column Aug. 28, 1941, p. 276, wherein it was stated that the H.R.H. Construction Co., New York, was low bidder at the July 25 opening but that the company "was unable to take all three projects, and J.A.J. Construction Co., Brooklyn, the second bidder, offered to take the entire job at the low bid." The facts as now reported are that the first low bid was above the statutory limit of $3,500 per unit and this was rejected. Plans were revised to bring the cost down, after which the Housing Authority called in the three low bidders for negotiation and awarded the jobs to the J.A.J. Company.

CONTRACTS AND CAPITAL

ENGINEERING CONSTRUCTION awards for the short week due to the Labor Day holiday total $90,014,000, an increase of 18 percent over the volume for the corresponding 1940 week.

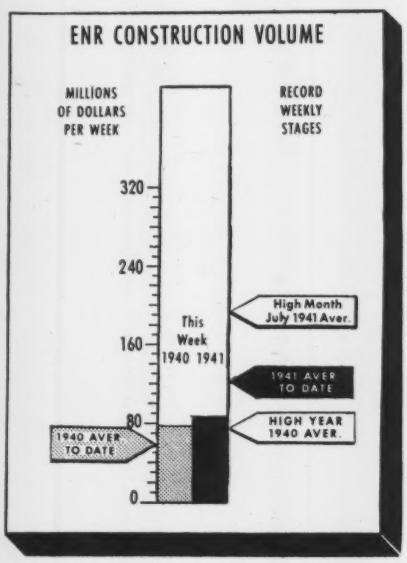
Public construction is responsible for the gain, topping the last year's total by 28 percent. Private awards are 17 percent lower than in the 1940 week.

The current week's awards bring the 1941 total to $4,419,641,000, just double the volume reported for the corresponding 36-week period last year. Private awards for the period are 39 percent higher, and public construction is up 125 percent as a result of the 339 percent increase in federal work.

In the classified construction groups, gains over last week are in sewerage, commercial building and large-scale private housing, and unclassified construction. Increases over the 1940 week are in commercial and public buildings, and unclassified construction.

New capital for construction purposes for the week totals $10,674,000. This compares with $445,947,000 for the week last year. The current week's financing total is made up of $8,891,000 in state and municipal bond sales, $1,533,000 in corporate security issues, and $250,000 in RFC loans for public improvements.

New construction financing for the year to date, $5,414,135,000, is up 123 percent compared with the total reported for the 36-week period last year.



CONTRACTS

(Thousands of dollars)

	Week Ending Sept. 5 1940	Aug. 28 1941	Sept. 4 1941
Federal	$35,021	$80,428	$54,225
State & Municipal	23,547	25,836	20,868
Total public	$58,568	$106,264	$75,093
Total private	17,993	17,969	14,921
TOTALS	$76,561	$124,233	$90,014
Cumulative 1941 (36 weeks)			$4,419,641
Cumulative 1940 (36 weeks)			$2,211,282

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	1940 36 weeks	Cumulative 1941 36 weeks
NON-FEDERAL	$1,232,706	$1,016,546
Corp. Securities	158,280	302,257
State & Mun.	603,851	335,629
U.S.H.A. loans	170,379	30,399
R.F.C. loans	116,196	84,761
R.E.A. loans	.....	100,500
Federal Aid—Hwy.	184,000	163,000
FEDERAL	$1,198,572	$4,397,589
TOTAL CAPITAL	$2,431,278	$5,414,135

ENR INDEX NUMBERS

		1913	1926
Index Base=100			
Construction Cost	Aug. '41	260.41	125.18
Building Cost	Aug. '41	212.45	114.84
Volume	July '41	635.	278

CONTRACT UNIT PRICES

What contractors are bidding on different kinds of construction work

ORDNANCE DEPOT DOCK CHARLESTON, S. C.

OWNER: U. S. Engineer Office, Charleston, S. C.

PROJECT: Removal of remains of existing timber dock; construction of concrete shiploading dock; concrete loading platform; foundations, floor, roof, and general reconditioning of Dock Shed No. 1 (now existing); railroad approach to dock; at Charleston Ordnance Depot on westerly shore of Cooper River, 10 miles north of Charleston, S. C. Involves building new reinforced concrete dock, 1,000 by 46-ft. supported on precast concrete piles; approximately 1½ miles of railroad track; 1.1 miles of waterlines.

CONDITIONS: Contractor to furnish all materials and complete work in 280 days. Rail, highway and water transportation facilities available. Wage rates specified as minimums are: skilled labor, $1.00 to $1.25 per hr.; semi-skilled, 40 to 75c.; and common, 35c.

BIDS: Six bids were opened May 31, 1941, ranging from the contract low of $995,470 to $1,255,168.

LIST OF BIDDERS:

1. Espy Paving & Constr. Co., Savannah, Ga. $995,470
2. McWilliams Dredging Co., New Orleans, La. 1,001,517
3. Southeastern Engr. Corp., E. Jack Smith, Atlanta, Ga. 1,053,573
4. V. P. Loftis, Charlotte, N. C. 1,190,000
5. T. R. McMeekin, Cheraw; C. Y. Thomason Co., Greenville; Wannamaker & Wells, Inc., Orangeburg, S. C. 1,193,145
6. W. Horace Williams Co., New Orleans, La. 1,255,168

Part I—Remove Existing Dock

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Removal of existing dock	L.S.	$6,000.00	$10,000.00	$8,175.00

Part II—Construction of Dock

1. Concrete	3,754 c.y.	$30.35	$35.00	$33.00
2. Concrete piles	59,280 l.f.	4.57	3.70	5.25
3. Reinforcing steel	827,000 lb.	.06	.06	.058
4. Creosoted fender and dolphin piles.	19,795 l.f.	1.60	1.75	1.60
5. Creosoted timber	12.2 Mbm.	145.00	250.00	170.00
6. Galvanized hardware	10,400 lb.	.15	.12	.30
7. Cast iron bits and cleats	25,000 lb.	.06	.15	.15
8. Track matl.; switches and rails	65 l.ton	100.00	70.00	145.00
9. Track matl.; track fastenings	57,260 lb.	.05	.06	.15
10. 6-in. c. i. pipe and fittings	1,000 l.f.	1.50	1.50	2.25
11. 2½-in. gate valves	10 ea.	25.00	30.00	22.50
12. Manhole frames and covers	10 ea.	25.00	120.00	25.00
13. Electrical installation	L.S.	5,000.00	4,500.00	5,500.00

Part III—Repair Existing Dock, Including Loading Platform

1. Remove roof, floor, etc	L.S.	$6,000.00	$14,000.00	$4,500.00
2. Investigating foundations	L.S.	1,100.00	5,000.00	5,200.00
3. Concrete	600 c.y.	30.35	50.00	40.00
4. Reinforcing steel	153,600 lb.	.06	.06	.06
5. Roof trusses and purlins (struct. steel)	100,000 lb.	.08	.12	.15
6. Roof	L.S.	6,000.00	5,000.00	7,085.00
7. Miscellaneous repairs	L.S.	7,500.00	10,000.00	4,950.00
8. Creosoted piles	600 l.f.	2.00	2.60	3.00

Part IV—Railroad Construction

1. Clearing and grubbing	10 ac.	$100.00	$200.00	$140.00
2. Excavation	5,000 c.y.	.25	.75	1.00
3. Reinforcing steel	175,000 lb.	.06	.06	.055
4. Concrete piles	13,195 l.f.	4.57	3.70	5.40
5. Creosoted piles	107,100 l.f.	1.50	1.40	1.35
6. Creosoted timber	686 Mbm.	145.00	167.00	127.50
7. Galvanized hardware	67,700 lb.	.15	.12	.15
8. Creosoted cross ties	68 Mbm.	145.00	100.00	90.00
9. Ballast	1,800 ton	5.00	3.50	5.00
10. Steel rail	192 l.ton	120.00	70.00	70.00
11. Track fastenings	204,200 lb.	.05	.06	.07
12. Salvaged rail	116 l.ton	50.00	30.00	25.00
13. Concrete	962 c.y.	30.35	45.00	33.00

Part V—Waterlines

1. 6-in. c. i. pipe and fittings	5,700 l.f.	$1.50	$3.00	$2.00
2. 6-in. gave valves and boxes	2 ea.	40.00	600.00	50.00
3. Water meter and box	1 ea.	750.00	500.00	750.00

Part VI—Electric Transmission Lines

1. Electric transmission line	L.S.	$4,000.00	$3,000.00	$3,500.00

Part VII

1. Fire-water barrels and buckets	20 ea.	$25.00	$10.00	$10.00

RAILROAD AND TELEGRAPH LINE RELOCATION, IDAHO

OWNER: Bureau of Reclamation, Cascade Reservoir, Payette Division, Boise Project, Idaho; R. J. Newell, construction engineer, S. O. Harper, chief engineer.

PROJECT: Earthwork, structures, track, telegraph line and relocation of Idaho Northern branch of Oregon Short Line Railroad (Union Pacific Railroad Co., lessee) between Cascade and Donnelly, Idaho, Cascade Reservoir, Payette division, Boise Project, Idaho. Work located near Cascade. Actual connection between work under this contract and existing railroad track and telegraph line to be made by railroad and telegraph companies, respectively.

CONDITIONS: Government to furnish cement; corrugated metal pipe; timber piles; metal shoes; roofing-paper pile covers; timber for bridge, trestles, cattle guards, fences, road crossings; structural steel; red lead paste for bearing seats; ties, tie plugs, rails, angle bars, tie plates, rail anchors, switches, frogs, etc.; drain pipe; poles, brackets, insulators, wire, ground braces, etc.; material for right-of-way fences and cattle guards, paint and preservatives. Contractor to furnish balance of material and complete work in 230 calendar days. Rail and highway transportation facilities available, but access roads to actual site of work to be provided by contractor. Wage rates are: skilled labor, $1.00 to $1.25 per hr.; semi-skilled, 65 to 95c.; and common labor, 62½c.

BIDS: Eight bids were opened July 28, 1941, ranging from the contract low of $439,294 to $969,487.

LIST OF BIDDERS:

1. J. L. McLaughlin, Great Falls, Mont. (contract) $439,294
2. Morrison-Knudsen Co., Inc., Boise, Idaho 481,523
3. Max J. Kuney Co., Spokane, Wash. 486,728
4. Dan J. Cavanagh, Twin Falls, Idaho 519,565
5. Erickson Paving Co., and K. L. Goulter, Seattle, Wash. 547,273
6. J. A. Terteling & Sons, Boise, Idaho 556,637
7. Hoops Constr. Co., Twin Falls, Idaho, and Tony Marrazzo, Boise, Idaho 742,414
8. McNutt Brothers, Eugene, Ore. 969,487

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Clear right of way	150 ac.	$25.00	$20.00	$15.00
2. Grubbing right of way	50 ac.	25.00	20.00	15.00
3. Excavation; common, for roadway	402,000 c.y.	.15	.24	.20
4. Excavation; rock, for roadway	204,000 c.y.	.78	.84	.95
5. Overhaul	2,115,000 sta. c.y.	.005	.003	.01
6. Excav.; common, drain. channels and dikes	2,000 c.y.	.30	.30	.30
7. Excav.; rock, drain. channels and dikes	500 c.y.	2.00	1.50	1.00
8. Excav.; common, for structures	120 c.y.	1.00	2.00	3.00
9. Excav.; rock, for structures	1,460 c.y.	2.50	5.00	3.00
10. Rubble-masonry walls	120 c.y.	12.00	20.00	15.00
11. Dry rubble walls	120 c.y.	10.00	11.00	12.00
12. Riprap	57,000 c.y.	1.50	1.10	.80
13. Dry-rock paving	200 s.y.	3.00	2.00	3.00
14. Concrete in structures	660 c.y.	22.00	25.00	18.00
15. Place reinforcing bars	50,000 lb.	.025	.02	.03
16. Backfill	345 c.y.	.50	.60	1.00
17. Compacting backfill	345 c.y.	.50	.85	1.00
18. Lay 15-in. corr. metal pipe	1,650 l.f.	.50	.50	.60
19. Lay 18-in. corr. metal pipe	1,720 l.f.	.50	.60	.80
20. Lay 24-in. corr. metal pipe	510 l.f.	.50	.80	1.00
21. Lay 30-in. corr. metal pipe	740 l.f.	.60	1.00	1.20
22. Lay 36-in. corr. metal pipe	140 l.f.	.75	1.50	1.40
23. Lay 60-in. corr. metal pipe	360 l.f.	2.50	2.50	2.00
24. Lay 66-in. corr. metal pipe	150 l.f.	3.00	3.00	3.00
25. Driving timber piles	4,840 l.f.	.56	1.20	.70
26. Erect timber in bridge and trestles	90 Mbm.	17.50	35.00	30.00
27. Erect struct. steel in bridge	231,000 lb.	.025	.045	.03
28. Laying track	14.6 mi.	1,500.00	1,500.00	2,000.00
29. Apply rail anchors	8,500 ea.	.03	.10	.08
30. Construct turnout	4 ea.	300.00	200.00	300.00
31. Ballasting	26,000 c.y.	1.25	1.45	1.60
32. Constr. right-of-way fences	32 mi.	300.00	200.00	200.00
33. Install right-of-way fence gates	24 ea.	10.00	15.00	20.00
34. Construct cattle guards	24 ea.	10.00	25.00	40.00
35. Construct highway crossing	12 Mbm.	20.00	50.00	30.00
36. Construct telegraph line	10 mi.	200.00	300.00	500.00
37. Remove and salvage materials	L.S.	12,000.00	13,500.00	15,000.00

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include:

+	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Latin America
Bridges, Grade Cross'gs	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: All low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

WATER SUPPLY

PROPOSED WORK

★**Conn., Middletown**—P. Wks. Dpt., high pressure line from Mt. Higby Reservoir, $500,000, new main and fire protection, $100,000. $600,000.

Fla., Jacksonville—The Ortega Co., G. B. Stockton, pres. WW sys., supply service for Ortega Terrace, Venetia, Morven Terrace and Timuquana Terrace, suburbs Jacksonville.

Ill., Beecher City — Water sys. $58,000. Warren & Van Pragg, Decatur, engrs.

Ill., Wapello—Bond election Sept. 23, water sys. $53,645. Warren & Van Pragg, Decatur, engrs.

Ill., Weldon — Exten. water sys. $50,000. Warren & Van Pragg, Decatur, engrs. CD 6/11—ENR 6/19.

Ia., Mystic—Town, WW sys. R. W. Gearhart, 349 21 St. S.E., Cedar Rapids, engr.

Kan., Mound Valley—Water supply imprv., 2 mi. street paving, sewers, sewage plant, light athletic field. $50,000. A. W. Hefling Eng. Co., Parsons, engr. Application filed PWA.

Miss., Bay St. Louis—G. G. Blaize, mayor, voted bonds WW sys. $125,000.

Mo., Carthage—WW imprv., plant, deep well, pumps, $20,000.

Mo., Kirkwood (P. O. St. Louis)—c/o City Clerk, WW and distribution sys. extensions. $225,000. H. C. Holz, city engr., City Hall. PWA funds sought.

Mo., Valley Park—City, c/o city clk., WW and distribution sys. extensions, imprv. $66,000. PWA funds sought.

N. J., North Caldwell—WW sys., $50,000. J. C. Harding, 15 Park Pl., New York, engr.

O., Kalida—Waterworks plant, $51,000. Ellis & Wertz, Van West engrs.

O., Lorain—Imprv. WW plant, 2 new boilers, $60,000. H. F. Alexander, Lorain, city engr.

O., Oakwood — WW sys. $48,000. Ellis & Wertz, Van West, engrs.

O., Racine—WW sys., 100,000 gal. storage tank., $60,000. P. W. Elwell, 5005 Euclid Ave., Cleveland, engr.

O., Rutland—WW sys., 100,000 gal. storage tank, $60,000. P. W. Elwell, 5005 Euclid Ave., Cleveland, engr.

Ore., Springfield — Glenwood Water Dist., Springfield, bond election September 18, water distr. sys. connecting with Eugene Station. $48,000. C. E. Mercer, Eugene, engr.

Pa., Erie—Erie County Electric Co., P. G. Sturtevant, vice pres. in charge, plans additional intake water line from Lake Erie to provide water for generating station, Raspberry and 5 Sts. $20,000.

Tenn., Humboldt — H. J. Faltz, mayor, waterworks, sys., reservoir, filter and aerator and 10 in. well. $75,000.

Tenn., Winchester—WW., $119,000.

Tex., Crockett—Voted $24,000 bonds WW sys. imprvs., filtration plant, mains, E. W. Steel c/o A & M College Eng. Branch, College Station, consult. engr.

Tex., San Antonio—Emergency stand-by-water pumping station. $75,000.

Vt., Brattleboro—Town Bd. Selectmen, Town Hall, bids rejected, 2.7 mi. 10 in. c.i. water pipeline, 400 ft. bridge crossing. $52,000. E. Culver, engr. CD 7/15—ENR 7/17.

Wash., Bellingham—1 m. g. covered reservoir, filtration plant on Sehome Hill, $15,000.

Wis., Manitowoc — Complete filtration plant and water storage tank. $275,000. E. Walter, city engr. CD 7/30—ENR 8/7.

Ont., Iroquois—M. Hyslop, municipality clk., WW imprvs. and 6 in. water main exten. $20,000. Burgess & Gardner, 53 Queen St., Ottawa, associated with J. E. Gregory, engrs.

Ont., Newmarket — Reservoir and pump house. $18,200. Margison & Babcock, 210 Dundas St., W., Toronto, engrs.

Ont., Wallaceburg—S. Bennett, municipal clk., WW imprvs., 6 in. c.i. pipe. $25,000.

Que., Batiscan—WW sys. $30,000.

BIDS ASKED

Bids Asked September 10

Md., Hyattsville — Washington Suburban Sanitary Comn., Owens Ave., steel water filtration plant, head house, wash water tank and reservoir. Contr. 131-W; adv. ENR 9/4.

LOW BIDDERS

★**Calif., San Diego**—City, Aug. 26, constructing San Vacinte Dam, from L. E. Dixon Co., 609 S. Grand Ave., Los Angeles, **$1,743,908**; cement, from Southwestern Portland Cement Co., 727 W. 7 St., Los Angeles, **$672,848.** CD 8/5—ENR 8/7.

CONTRACTS AWARDED

Mich., Detroit—Watermains, sanitary sewers for Davison Limited Hy., to Waterway Constr. Co., Detroit. **$40,281.** L. Smith, Detroit, engr.

Mich., Wayne—C. Ellis, village clk., WW booster station gen. contr. to C. N. Bard, 22427 Gratiet Ave., East Detroit, **$28,253.** CD 7/23—ENR.

N. J., East Orange—Watermains, Amherst St. and Ashland Ave. **WPA. $40,000.** W. Willegarod, Town Hall, WPA and Town engr.

N. Y., Springville—Village Bd., drilling well, pumping equip., etc., to Howard Cranston & Son, Fredonia. Est. **$15,000.** Awarded 8/25.

N. C., Raleigh—G. Andrews, mayor, exten. water and sewer lines. **WPA. $80,000.** CD 6/5—ENR 6/19.

O., Convoy—Water distribution sys to C. H. Leach & Co., Box 115, De Graff, **$35,190**, and 100,000 gallon storage tank awarded to Pittsburgh-Des Moines Steel Corp., Pittsburgh. Total Est. **$68,000.** CD 7/23.

Pa., North East—Boro Council, North East, 10 and 12 in. c.i. water mains, own forces. **$15,000.** Hill & Hill, North East, engrs. CD 7/23—ENR 7/31.

Tex., Aspermont—Exten. WW sys., incl. treatment and pumping plant, laying distr. lines, drain lines, relief labor. **$50,000.**

Que., Almaville—J. O. Beaumier, municipal clk., exten. ww. and sewerage sys., day labor. Est. **$35,000.**

Que., Thetford Mines—H. Gilbert, municipal clk., dam to increase water supply, to [illegible] & Bergeron, 61 Marie Rollet, Quebec. **$30,000.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Oakland—2,775 lin. ft. 8 in. clay sewers, etc., Sterling Drive. W. Frickstad, city engr.

Ga., Macon—C. L. Bowden, mayor, sewage disposal plant, Rocky Creek plant and sewer line. Wiediman & Singleton, Candler Bldg., Atlanta, engrs.

Idaho, Pocatello—Rejected bids Aug. 12, sewage treatment plant. $82,000. R. Briggs, Robert Noble Bldg., Boise, engr. CD 7/25—ENR 7/31.

Ill., Robertson—Cutriss Sewer Dist., St. Louis Co., sanitary sewers, $154,545. PWA grant sought.

Kan., Galena—Sewage disposal plant, WW sys., extensions and paving. $300,000. A. W. Hefling Engr. Co., Sun Bldg., Parsons, engr. Application filed PWA.

La., Lafayette—City, sewerage disposal sys. S. B. McCrary Co., Atlanta, Ga., engr.

Mich., Ontonagon—D. G. Aubrey, town clk., sewage disposal plant. Druar & Milinowski, 1411 Pioneer Bldg., St. Paul, Minn., engrs.

Minn., Greenwald — Town, sewage disposal plant. $30,000. E. A. Briggs, 1957 University Ave., St. Paul, engr.

Mo., Affton (St. Louis P. O.)—Affton Sanitary Sewer Dist., Meister's Lane, Affton, sanitary sewers. $189,124. PWA grant sought.

Mo., Carsonville (St. Louis P. O.)—Carsonville Sewer District, c/o L. H. Pelker, secy. Bd. Trustees, St. Louis Co., 3105 Carsonville Rd., sanitary sewers. $280,000. PWA grant sought.

Mo., Carsonville (P. O. St. Louis)—Walton Road Sanitary Sewer Dist., St. Louis Co., Dr. F. G. Bickel, trustee, 8924 A St., Charles Rock Rd., St. Louis Co., sanitary sewers. $280,000. E. A. Fulton, 3 South Meramec Ave., Clayton St., St. Louis. PWA grant sought.

Mo., Jennings (P. O. St. Louis)—Jennings Sanitary Sewer Dist., Jennings, sanitary sewers, etc. $240,000. PWA fund sought.

Mo., Jennings (P. O. St. Louis)—Melrose Sewer Dist., St. Louis Co., 5207 Helen Ave., sanitary sewers. $171,705. PWA grant sought.

Mo., Kirkwood (P. O. St. Louis)—City, c/o city clk., City Hall, imprv. sanitary sewerage sys. $50,000. H. C. Holz, city engr., City Hall. PWA funds sought. CD 1/9—ENR 1/16.

Mo., Normandy (P. O. St. Louis)—Normandy Sanitary Sewer Dist., St. Louis Co., Normandy sanitary sewers. $150,000. G. S. Russell, 4903 Delmar Blvd., St. Louis, engr. PWA grant sought.

Mo., St. Louis Co.—Hanley Page Sewer Dist., c/o E. A. Fulton, engr., 3 South Meramec Ave., Clayton, St. Louis, sanitary sewers. $103,670. PWA grant sought.

Mo., Valley Park,—City clk., sewer sys. disposal plant, imprv. extensions, etc. $129,000. PWA funds sought.

New Jersey—Essex Co. Park Comm., 115 Clifton Ave., Newark, sanitary sewers, parking areas, masonry walls, curbs, etc. park imprv., $65,000. R. D. Crater, 115 Clifton Ave., Newark, owners and WPA engr.

N. J., Bayonne—12 in. and 15 in. tile sewers, manholes, catch basins, various streets. $63,800. WPA. H. A. Jaeger, City Hall, WPA and City engr.

N. J., Newark—Excavating, sheeting, storm sewers, manholes, various streets. $66,000. WPA. J. Costello, City Hall, WPA and City engr.

N. J., Passaic Twp.—Sewage treatment plant. $60,000. WPA. C. Malstrom, Orange and N. 6 St., Newark, owner's and WPA engr.

N. Y., Bemus Point—Village Bd., sewerage sys. and disposal plant. Over $25,000.

O., Kent—Bond election November, $250,000, sewers, extensions. $475,000. Application PWA funds. CD 6/3/40—ENR 6/6/40.

O., New Philadelphia — Defeated $100,000 bonds, sewer extensions. CD 6/25—ENR 7/3.

Pa., Bradford—M. E. Cornelius, city clk., sewage disposal plant. $300,000. J. Henry Quirk, City Hall, engr.

Tenn., Winchester—J. R. Norton, mayor, incinerator. $30,000.

SEWERS, etc. (Proposed Work, Cont'd.)

Tex., Grand Prairie—Extend. sanitary sewerage sys. $35,000. H. Smith, 2151 Fort Worth St., Dallas, engr. CD 8/7—ENR 8/14.

Tex., Orange—Concrete storm sewers. $77,000. C. P. Smith, Bancroft Bldg., engr.

Tex., Ranger—Voted bonds sanitary sewerage sys. $65,000.

BIDS ASKED

Bids Asked September 30

†Pennsylvania—U. S. Eng., 332 Post Office Bldg., Baltimore, Md., 3,000 ft. rein.-con. intercepting sewer at Toby Creek in Kingston and Edwardsville, Luzerne Co.; adv. ENR 9/4.

Bids Asked

Calif., Alvarado — Alvarado Sanitary Dist., Smith and Watkins Sts., 15,000 lin. ft. 6 and 8 in. vitr. sewer, cement or asphalt joints, 2,379 lin. ft. 8 in. wood stave pr. transite pipe, etc. L. C. Macabee, 456 University Ave., Palo Alto, engr.

LOW BIDDERS

O., Warren—Metropolitan Housing Authority, sewers and water lines, for Trumbull Homes Housing Proj., from The Scholl-Choffin Co., 12 Hogue St., Youngstown. $45,300. Sidells & Keppel, 5062 National Bank Bldg., engr.

CONTRACTS AWARDED

Calif., Watsonville—Sanitary sewers, various streets, to R. M. Kyle, 338 East Oak St., Lodi. **$36,250.** Bids Aug. 19. CD 8/6—ENR 8/14.

Ill., Newton—C. A. Ross, city clk., sewage sys., to L.-K. Contracting Co., Terre Haute. **$81,215.** T. T. Hardman, 2100 S. Center, Terre Haute, engr. CD 4/22—ENR 4/24.

Mich., Ypsilanti—100x200 ft. sewage disposal plant, to Course & Saunders, 12740 Lyndon St., Detroit. **$300,000.**

†N. J., Clark—Federal Works Agency, 7 and D Sts., S.W., Wash., D. C., sanitary sewers, excavating, grading, at defense housing project. **WPA. $51,500.**

N. J., Newark—Excavating, sheeting, sanitary sewers, various streets. **WPA. $50,500.** J. Costello, City Hall, WPA and city, engr. CD 8/15—ENR 8/21.

N. J., Newark—Passaic Valley Sewerage Comn., 24 Branford Pl., sedimentation basin, 50 m.g. capacity, Doremus Ave. **WPA. $426,395.** J. R. Van Duyne, 24 Branford Pl., engr. CD 11/14/40—ENR 11/21/40.

Pa., Aliquippa—R. Schwartz, boro secy., storm and sanitary sewers, to N. Istock, 704 Ann St. **$42,713.**

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Calif., Bakersfield—Kern Co., Court House, rein.-con. Rancheria bridge, over Kern River. Over $25,000. D. R. Warren, 816 W. 5 St., Los Angeles, engr.

Calif., Long Beach—Rein.-con. bridge over Los Angeles River, Artesia Rd., $225,000. D. R. Warren, 816 W. 5 St., Los Angeles, engr. CD 6/8—ENR 6/10.

Conn., New Haven—P. Wks. Dpt., repairing Grid Deck bridge, Chapel St. $30,000.

Fla., Miami—Comrs. Dade Co., rejected bids Aug. 12, fixed beam bridges, part of Biscayne Causeway over Biscayne Bay. CD 7/22—ENR 7/24.

★**Idaho, Coeur d'Alene** — State Hy. Dpt., Boise, bridge over Blue Creek Bay, near here, on new Rt., US 10. $500,000.

Mo., Kansas City—Chicago, Rock Island and Pacific Ry., W. H. Willis, ch. oper. officer, La Salle St., Chicago, Ill., and Chicago Milwaukee & St. Paul R. R. Co., W. H. Penfield, ch. engr., Union Sta., Chicago, Ill., new RR bridge over Missouri River. Over $100,000. Howard, Needles, Tamen & Bergendoff, Orear Leslie Bldg., Kansas City, engrs. CD 11/25/40—ENR 11/28/40.

New Jersey—Atlantic Co., Court House, Atlantic City, reconstruction various Co. Bridges, $55,000. WPA. G. R. Swinton, 930 Atlantic Ave., Atlantic City, WPA and Owners, negr.

New Jersey—E. D. Sterner, comr., State Hy. Dpt., Trenton, bids rejected August 22, reconstructing underpass, Pennsylvania-Reading Seashore Lines, East Red Bank Ave., FAGM-32 (1) Off., Woodbury. Will readvertise. CD 8/5—ENR 8/7.

★**O., Cleveland**—State Hy. Dpt., H. G. Sours, Dir. Columbus, concrete and steel underpass of N. Y. C. R.R. at W. 589 West Shore Freeway, $500,000. R. E. Williams. Broad Way, Cleveland, Div. engr.

Pa., Pittston—Comrs. Luzerne Co., Court House, Wilkes Barre, repairing, reinforcing, etc. Fort Jenkins Bridge connecting Pittston and West Pittston. $25,000.

†Tenn., Knoxville—U. S. Park Service, Knoxville, plans 5 bridges in Great Smokies Natl. Park. $125,000.

Tex., Sherman—Grayson Co., c./o County Judge, voted bonds bridges. $120,000. CD 8/4—ENR 8/7.

Ont., Belleville—J. W. Homes, municipality clk., steel bridge over Moira River. $30,000. C. Mott, City Hall, engr.

Ont., Fordwich—Howick Twp., J. Gamble, clk., bridge. $30,000. F. A. Edgar, Fordwich, engr.

BIDS ASKED

Bids Asked September 9

Iowa—State Hy. Comn., Ames, remove old bridge, and pave 0.915 mi., U.S. 6, Cass Co.; 4 rein.-con. box culvert, extensions, 1 18x20 ft. special slab, Iowa 240 east to U.S. 71, Clay Co.; 3 rein.con. box culvert extensions, Local Rd. Sect. 33-81-28, FSN—797, Dallas Co., 26 rein.-con. box culverts, extensions concrete pipe with flume, outlets, Iowa 333, FA 865, Fremont Co.; 2 rein.-con. pipe culverts, Iowa 37, FA-861-A, Monona Co.; 22x210 ft. continuous I Beam bridge, County Trunk Rd. "E", over Nodaway River, River Drainage Ditch 5, Valley Twp., FSN-790, Page Co.; 11 rein.-con. box culverts, extensions, County Trunk Rd. "P," FAS-723-A(1), Plymouth Co.

Maryland—State Rd. Comn., Federal Reserve Bank Bldg., Baltimore, repainting bridges Cecil, Harford, Caroline-Talbot, Anne Arundel-Prince George, Montgomery, Carroll, Charles Allegany Counties.

Ohio—State Hy. Dpt., Columbus, continuous steel beam hy. overhead structure, concrete deck, substructure, 1.142 mi. Pennsylvania R.R. grade crossing elimination proj.; continuous steel beam bridge, concrete deck substructure, over Red Bank Rd., and Duck Creek, grading, drainage structures, rein.-con. paving Sect. Erie Ave., Brotherton Rd. relocation, City Cincinnati, $460,780.

Bids Asked September 11

Florida—State Rd. Dpt., Tallahassee, bascule span bridge, Proj. 5134 (4), Rd. 363, over Ortega River, Duval Co. J. H. Dowling, State Hy. engr.

Bids Asked September 12

Pennsylvania—At office I. L. Hughes, secy. State Hy. Dpt., Harrisburg, constructing 3,389 ft. overpass bridge on Legislative Route 171, Sect. 4-A, Traffic Route 90, Wayne Co.

Bids Asked September 23

New York—Chief Engineer, Dpt. P. Wks., State Office Bldg., Albany, raising Canal Bridge E-3, Saratoga Ave., Saratoga Co.; adv. ENR 9/4.

Bids Asked September 24

Ill., Chicago—City, 406 City Hall, superstructure double leaf trunnion bascule bridge over South Branch Chicago River, at South Canal St.; adv. ENR 9/4.

New York—Chief Engineer, Dpt. P. Wks., State Office Bldg., Albany, raising Barge Canal Bridge E-42, West Schuyler Rd., Herkimer Co.; adv. ENR 8/4.

LOW BIDDERS

Indiana—State Hy. Comn., State House Annex, Indianapolis, Aug. 26, bridge Montgomery Co., from R. H. King, Danville, $65,823 ***bridge over Grand Trunk Ry. and paving La Porte Co., from J. C. O'Connor & Sons, Inc., 2104 Miner St., Fort Wayne, $97,742*** bridge over Kingsbury Creek, La Porte Co., from Paul J. Messer Constr. Co., 9942 S. Leavitt St., Chicago, Ill., $48,602. CD 8/15—ENR 8/28.

Iowa—State Hy. Comn., Ames, Aug. 26, bridge and paving work, Buchanan Co., from Fisko & Costigan, Garber, $32,043. CD 8/15—ENR 8/21.

★**Michigan**—State Hy. Dpt., Lansing, Aug. 20, 4,085 ft. causeway, north shore straits of Mackinac, Mackinac Co., from Johnson & Greene, Whitmore Lake, **$615,100.**

Mo., Kansas City—City, August 26, 66 ft. span overpass, 17 St., for Southwest Trafficway proj. from J. A. Tobin Constr. Co., 3700 Rainbow Blvd., Kansas City, $44,185.

South Dakota—State Hy. Comn., Pierre, August 26, constr. 176 ft. and 158 ft. I beam, and Tw. 12 Ft. B. C., Stanley Co., from Willis Bonesteel & A. L. Hyde, Wagner and Watertown, S. Dak., $51,721. CD 8/13—ENR 8/21.

CONTRACTS AWARDED

Mass., Boston—Dpt. P. Wks., City Hall Annex, reconstruction work 14 concrete and steel bridges throughout city to M. J. Kelley, 95 Prince St., Jamaica Plain, (Boston) **$53,433.** Charlestown Bridge to Baker & Co., 1335 Hyde Park Ave., Hyde Park, (Boston), **$48,945.**

Montana—State Hy. Dpt., Helena, H. W. Holmes, state hy. engr., imprv. 3.517 mi. Roosevelt Co. and 2 treated timber pile trestle bridges, to Collison & Dolvin, Inc., Billings. **$135,335.** CD 8/13 under Roads.

N. J., Atlantic City—Atlantic Co., Courthouse, county bridges. **WPA. $62,000.** CD 6/30—ENR 7/3.

†Tex., Brownwood—Con. Q.M., Camp Bowie, concrete bridges, drainage embankment for bridge approaches, paving, to Allhands & Briley, Inc., and Allhands & Swatzell, Inc., Union Natl Bldg., Dallas, **$111,448.**

STREETS AND ROADS

BIDS ASKED

Bids Asked September 8

N. J., Pennington—Boro, Type A or T surfacing on macadam fdn., West Welling Ave. A. D. Bullock, 202 Academy St., Trenton, engr.

Bids Asked September 9

Iowa—State Hy. Comn., Ames, paving 6.328 mi. Iowa 240, FA 871 A(1), Clay Co.; grading 4.525 mi. County Trunk Road C, FAS 6 B(1), Calhoun Co.; 6.328 mi. FA 871 A(1), Clay Co.; 6.101 mi. Local Rd. Sect. 33-81-28, FSN 797, Dallas Co.; 5.681 mi. County Trunk Rd. B, FAS 709 A(1) N, Hardin Co.; 0.970 mi. Iowa 37, FA 861 A, Monona Co.; 11.994 mi. County Trunk Rd. P, FAS 723 A(1), Plymouth Co.; 4.216 mi. Local Rd. and County Trunk T, FSN 799, Webster Co.; gravel surfacing 5.634 mi. FSN 333, Adams Co.; 4.525 mi. County Trunk Rd. C, FAS 6 B(1), Calhoun Co.; 10.570 mi. local roads, Lick Creek, Perry, Grove and Prairie Twps., Davis Co.; 5.681 mi. County Trunk Rd. B, FAS 709 A(1) N, Hardin Co.; 11.994 mi. County Trunk Rd. P, FAS 723 A(1), Plymouth Co.; 4.685 mi. Iowa 98 FA 849 A(1), Wapello-Davis-Van Buren Counties; secord course surfacing 5.793 mi. Local Rd. and County Trunk Rd. N, FSN 216, Floyd Co.; 5.770 mi. Local Rd. from Iowa 147 south, FSN 217, Floyd Co.

Maryland — State Rd. Comn., Federal Reserve Bank, Baltimore, grading, drainage, concrete surfacing, dual hy., extension Salisbury By-Pass for 1 mi.

Mississippi—State Hy. Comn., Jackson, cutback asphalt stabalized road bed, patching existing primed base, incidental work, 14.165 mi., McLani-Leakesville Hy., Green Co., SP 24-1508 (2). $140,000. R. A. Harris, Jackson, engr.

★**Ohio**—State Hy. Dpt., Columbus, resurfacing with asphaltic concrete 1.035 mi. Sect. Green Springs of SH 515, Sandusky and Seneca Counties, $13,100; 0.529 mi. Sect. Alliance SH 76 and 850, Stark Co., $9,000; grading, paving with asphaltic concrete 1.052 mi. Sect. Parma SH 553, Cuyahoga Co., $23,800; drainage structures, widening, resurfacing, asphaltic concrete 3.385 mi. Sect. G, R and L SH 97, US 224, Medina Co., $45,800; grading, drainage structures, widening, asphaltic concrete surfacing 3.199 mi. Sect. E SH 420, Defiance Co., $53,850; grading, widening, resurfacing asphaltic concrete 2.748 mi. Sect. W SH 512, US 30-N, Wyandot Co., $36,850; grading, drainage structures, widening, bituminous macadam, pre-mixed, resurfacing, cold-mixed, cold-laid asphaltic concrete 3.091 mi. and building box culvert Sect. A SH 516, Mahoning Co., $64,900; widening, resurfacing, bituminous pre-mixed surfacing Sect. L, SH 26, US 22, 2.982 mi., Jefferson Co., $29,600; bituminous treatment 26.52 mi. various sections SH 890, 446, 90, 930, 34, 36, 55 and 604, Cuyahoga Co., $32,729; 43.51 mi. various sections SH 4, 288, 521, 636, 97, 149, 267, 272, 292 and 455, Erie and Huron Counties, $67,443; 0.027 mi. grading, building drainage structures Sect. F, SH 541, Cuyahoga Co., $4,900; paving, traffic compacted surface course 0.075 mi., concrete beam bridge over Little Raccoon Creek, Sect. A, SH 800, Vinton Co., $9,850; grading, drainage structures, rein.-con. paving 4.679 mi., concrete beam bridge over Wolf Run, Sects. C and S, SH 139, US 42, Ashland and Wayne Counties, $380,000; grading, drainage structures, rein.-con. paving 5.350 mi., continuous concrete slab bridge over Turtle Creek Sects. C, M and I, SH 438, Ottawa Co., $350,000.

Virginia—Dpt. Hys., Richmond, waterbound macadam paving 4 mi. Route 7, Fairfax Co.; 2.7 mi. Route 29, Pittsylvania Co.; concrete paving 0.6 mi. Route 17, Norfolk Co.; grading, draining 7.6 mi. Route 6, Charlotte Co.; soil surface treating 0.5 mi. Route 137, Sussex-Greenville Counties.

West Virginia—State Rd. Comn., D. McClaugherty, secy., Charleston, concrete paving 0.43 mi. State Route 2, Brooke Co.; grading, draining, concrete paving 0.15 mi. State Route 20, Harrison Co.; grading, draining 3.2 mi. State Route 34, Lincoln Co.; macadam base and surface treating 5.318 mi. Secondary Route 31, Monroe Co. and 10.767 mi. State Route 20; also 4.32 mi. Secondary Route 21, Summers Co.; surface treating 4.941 mi. State Route 39, Nicholas Co.; grading, draining, macadam base, bituminous surfacing 0.434 mi. Norton Overhead Bridge approaches, Randolph Co.

Bids Asked September 10

Kansas—State Dpt. Hy., Topeka, resurfacing material, 11.343 mi., K 1550, Marshall Co.; asphaltic surfacing, 12.208 mi., K1132, Archison Co.; 6.043 mi. Jackson Co., grading 0.871 mi., FA 394 C, Wyandotte Co., 0.123 mi., FA 52 A, Wyandotte and Leavenworth Counties; concrete paving, 0.871 mi., FA 394 C, Wyandotte Co.; 0.123 mi., FA 52 A, Wyandotte & Leavenworth Counties. R. B. Wills, State engr., Topeka.

Bids Asked September 12

Georgia—State Hy. Bd., W. E. Wilburn, Bd. chn., Atlanta, surface treating 2.873 mi. road beginning 2 mi. from Monticello, extending toward Farrar, Jackson Co.; 3.096 mi. Warrenton-Camak Rd., State Rt. 12 to Camak, Warren Co.; grading and double surface treating 3.853 mi. Forsyth-Juliette Rd., Monroe Co.; 5.220 mi. Cochran-Dublin Rd., Bleckley Co.; grading, double surface treating on crushed stone base, Cedartown, Ga., Piedmont, Ala., Rd., Polk Co.; double surface treating 3.408 mi. State Rt. 49 to State Rt. 27, Sumter Co.; Limerock base, double surface treating 3.822 mi. Reynolds-Roberta Rd., Crawford Co.; concrete paving 0.108 mi. and double surface treating 0.346 mi. Tennille-Wrightsville Rd., Washington Co.; graded

STREETS, etc. (Bids Asked, Cont'd.)

road 8.278 mi. and 1 bridge, Reedy Creek on Thomson-Wrens Rd., Warren-Jefferson Counties.

Pennsylvania—At Office I. L. Hughes, secy. Hys., Harrisburg, bituminous surface on native stone, also 6 rein.-con. structures on 23.795 ft. Legislative Route 171, Sect. 4 B, Wayne Co. bituminous surface 3, 536 ft. Legislative Routes 375, Sect. 12, Allegheny Co.; rein.-con. paving and two I beam bridges on 14, 268 ft. Legislative Route 287, Sect. 9, Bradford Co.; bituminous surface, native stone base, reconstructing bridges, etc., on 24,913 ft. Legislative Route 100 Sect. 2, Cameron Co.; bituminous surface on native stone, on 4,024 ft. Legislative Route 180, Spur E, Sect. 1, Delaware Co.; 4,575 ft. Legislative Route 117, Sect. 9, Fayette Co.; rein.-con. paving, 2 rein.-con. arches, etc. 9,560 ft. Legislative Route 136, Sect. 1, Lancaster Co. T. C. Frame, c/o owner, ch. engr.

Bids Asked

†**Alabama**—Public Road Admin., 805 Medical Arts Bldg., Florence, rejected bids July 10, imprv. Natchez Trace Parkway, Lauderdale Co. CD 7/18—ENR 7/24, under LB.

Ohio—State Hy. Dpt., Columbus, rejected bids August 12, imprv. 1.278 mi. Sections M-3 and South Point of SH 7, N.S. 52, Lawrence Co. $52,000. CD 8/18—ENR 8/21.

LOW BIDDERS

†**Arizona**—Public Roads Admin., San Francisco, Calif., Aug. 21, imprv. 12.95 mi. Navajo Co., from O. F. Fisher Constr. Co., 516 S 7 St., Phoenix, $67,645. CD 8/12—ENR 8/14.

Colorado—State Hy. Dpt., Denver, imprv. 5.769 mi., Larimer and Weld Counties, from Deakin Constr. Co., 669 Franklin St., Denver. $226,729. CD 8/5—ENR 8/7.

Florida—State Rd. Dpt., Tallahassee, T. A. Johnson, chn., imprv. 5 mi. Rd. 8, Highland Co., near Childs, from J. E. Ballenger, Lakeland, $58,354. CD 8/12—ENR 8/14.

Indiana—State Hy. Comn., J. D. Adams, chn., Indianapolis, Aug. 26, from Wayne Paving Co., Inc., 1935 Lincoln Bank Bldg., Fort Wayne, imprv. 7.85 mi. St. Joseph Co. **$91,712**, 5.87 mi. Henry, Rush and Fayette Counties, **$77,261**, 4.85 mi. Madison, Delaware, Tipton and Howard Counties **$80,614*****from Ralph Rogers & Co., Bloomington, imprv. 11.166 mi. Clark Co., **$75,977*****from Bituminous Materials Co., 705 Ohio St., Terre Haute, imprv. 3.98 mi. LaPorte and Lake Counties, **$119,106*****from Putnam & Green, Inc., 206 Transfer St., Fort Wayne, 4.68 mi. Allen, Noble, Wells and Blackford Counties, **$98,970*****from Indiana Asphalt Paving Co., 2810 Columbia Ave., Indianapolis, 5.45 mi. Hamilton, Hancock and Johnson Counties, **$66,253*****from W. L. Magaw, Richmond, 2.4 mi. Wayne and Union Counties, **$45,965***** from Wabash Valley Asphalt Co., 13 St. and Ft. Harrison Rd., Terre Haute, 1.51 mi. Vigo Co., **$22,885*****from Mid-American Eng. Corp., 117 W. Monroe St., Chicago, Ill., **$94,605**. Rejected bids Aug. 26, imprv. 0.649 mi. Clark-Seymour Counties, also 8.907 mi. Vigo and Clay Counties. Will readvertise soon. CD 8/14, 8/18 and 8/19—ENR 8/21.

Iowa—State Hy. Comn., Ames, Aug. 26, imprv. 6.849 mi. Fremont Co., from Hanco Constr. Co., c/o T. J. Harrington, Box 374, Sioux City, **$90,939**; grading 3.76 mi. Clinton Co., from Chas. T. Foley, Anamosa, **$28,901**. CD 8/15—ENR 8/21.

Kansas—State Hy. Dpt., at office of Clk., Great Bend, imprv. 5.816 mi. Barton Co. and 3.047 mi., Rush Co., from Chas. Hylme, Great Bend, $61,380. and $32,002 respectively. CD 7/30—ENR 8/7.

★**Kentucky**—Dpt. Roads, Frankfort, Aug. 22, from R. H. Waters, Elizabethtown, imprv. 11.733 mi. Adair Co., $219,258***from Fount Crow, Beaver Dam, 4.665 mi. Barren Co., $59,952***from H. C. Adams, Lexington, 0.274 mi. Bourbon Co., $36,952***from Gorman Constr. Co., Flemingsburg, 11.395 mi. Russell-Casey Counties, $276,149***from Gay-Coleman Constr. Co., Lexington, imprv. 5.777 mi. Clinton Co., $138,042, imprv. 2.409 mi. Clinton Co., $48,772, imprv. 4.137 mi. Hardin Co., $38,290 ***from O. V. Arnett, Berea, exten. to bridge over Sta. Camp Crook also imprv. 1.392 mi. Richmond and McKee Rd., Estill Co., $34,025 and $46,795 respectively***from Massman Constr. Co., 20 W 9 St., Kansas City, Mo., 0.328 mi. substructure, Richmond Lexington Rd., Fayette Co., $345,847***from Mt. Vernon Bridge Co., Mount Vernon, O., superstructure Richmond-Lexington Rd., 0.328 mi., $589,432 ***from George M. Eady Co., 340 Byrne Ave., Louisville, 0.104 mi. overhead bridge, Louisville Elizabethtown Rd., Jefferson Co., $116,106 ***from Highland Co., Inc., 644 Baxter St., Louisville, imprv. 2.442 mi. Jefferson Co., $114,957***from J. F. Pace Constr. Co., Marrowbone, imprv. 7.843 mi. Metcalfe Co., $145,811***from A. W. Walker, Danville, imprv. 7.918 mi. Powell-Montgomery Counties, $124,554***from W. M. Hooper, Caneyville, imprv. 2.897 mi. Pulaski Co., $43,417***from Foster & Creighton Co., American Natl. Bank Bldg., Nashville, Tenn., imprv. 9.686 mi. Webster Co., $246,231. CD 8/4—ENR 8/7.

Louisiana—State Dpt. Hys., Baton Rouge, W. P. Foster, dir., imprv. 3.921 mi. State rd. 31, Plaquemines Parish, August 20, from W. R. Aldrich & Co., Baton Rouge, $112,400. CD 7/29—ENR 7/31.

Michigan—State Hy. Dpt., Lansing, Aug. 20, imprv. 1.35 mi. Dickson Co., from Delta Contg. Co., 114 N. 10 St., Escanaba, **$42,776***** 0.528 mi. Berrien Co., from West Shore Constr. Co., Zeeland, **$113,529*****12.532 mi. Iosco Co., from Cooke Contg. Co., 1216 Penobscot Bldg., Detroit, **$74,737** *** 27.99 mi. also 1.763 mi., both Monroe Co., from Loselle Constr. Co., Mulberry and 1 Sts., Wyandotte, **$216,092** and **$86,276** respectively *** 33.5 mi. Otsego and Montmorency Counties, from Marsman & Taber, 415 Murray Bldg., Grand Rapids, **$78,508*****2.266 mi. Monroe Co., from Taylor Bros. Co., Inc., 790 Haynes Ave., Birmingham, **$198,566*****4.346 mi. Ogeman Co., from Ray Kebbe, Warren, **$49,768*****15 mi. Wexford Co., from H. Pickitt, 409 Hubbard St., Allegan, **$54,745*****0.519 mi. Ogeman Co., from Remus Constr. Co., Remus, **$27,748*****4.9 mi. Monroe Co., from Detroit, Asphalt Paving Co., 702 Transportation Bldg., Detroit, **$51,260**.

Minnesota—State Hy. Dpt., 1246 University Ave., St. Paul, imprv. 8.5 mi., between Junction R. H. 107 and Junction T. H. 61, from Schultz-Griffis Co., 4631 Wentworth Ave., Minneapolis, $53,915***3.8 mi., near Remer, from Belson, Mullen & Nelson, 355 Gateway Bldg., Minneapolis, $62,157***14.6 mi., between Hill City and Remer, and 11.5 mi., between McGregor and Libby, from Zontelli-Herbison, Inc., Ironton, $78,947 and $60,078 respectively. CD 7/30—ENR 8/7.

N. Y., New York—President Bronx Boro, Bronx County Bldg., 851 Grand Concourse, granite block repaving Jerome Ave., from Barry Contg. Co., 226-06-139 Ave., Laurelton. **$116,265.**

North Carolina—State Hy. & P. Wks., Comn., Raleigh, bids rejected August 25, mixing sand asphalt base and surfacing material, 10.61 mi., between Williamston and Beaufort County Line. $25,000 to $50,000. W. V. Baise, Raleigh, engr. CD 8/25—ENR 8/28.

North Dakota—State Hy. Dpt., Bismarck, August 22, imprv. 9. mi. Stark Co., from Bismarck Construction Co., Bismark, $60,725. CD 8/13.

★**Pennsylvania**—State Hy. Dpt., Harrisburg, Aug. 29, 23,740 ft. rein.-con. paving structures bridges Towanda and Burlington Twps., from A. B. Cole, Meshoppen, Pa. **$541,433.** Noted CD 8/21.

South Dakota—State Hy. Comn., Pierre, grading, imprv. 8.290 mi. and 16.020 mi., Roberts Co., from W. H. Noel Co., Jamestown, N. D., $70,758 and $170,380 respectively;*** 4.655 mi. Jackson Co., from G. W. England & Son, Rapid City, S. D., $38,566;***10.237 mi., Stanley Co., from R. P. England & Jarvis Construction Co., Murdo & Sioux Falls, S. D., $118,381;***bituminous treated gravel base course, 10.971 mi., Lawrence Co., from Inland Constr. Co., Omaha, Neb., $64,495. CD 8/13—ENR 8/21.

★**Pennsylvania**—State Hy. Dpt., Harrisburg, imprv. 9,486 ft. Schuykill Co., from Alstate Constr. Co., Bank Bldg., Burnham, $52,507*** 4,750 ft. Lackawanna Co., from Sweeney Bros., 40 Poplar St., Scranton, $60,375***47,799 ft. Indiana Co., from Allegheny Asphalt & Paving Co., 411 Blvd. of the Allies, Pittsburgh, $343,954***7,187 ft. Fayette Co., from Laub & Collins, Wilkinsburg, $218,547***4,607 ft. Cumberland Co., from Hempt Bros., R.D. 1, Camp Hill, $35,110. Grand total $710,495. Received no bids Aug. 22, imprv. 650 ft. Washington Co., will readvertise. CD 8/12.

Washington—B. Bantz, dir. Hys., Olympia, concrete paving, Primary State Hy. 5, Seattle to Renton, from N. Fiorito, 844 W. 48 St., Seattle, $121,609. CD 8/7—ENR.

Wash., Spokane—Paving Green St. connection, from Inland Asphalt Co., 10 and Havana, $26,549. CD 8/11—ENR 8/14.

CONTRACTS AWARDED

†**Calif., Camp Callan**—Con. Q.M., grading, surfacing 3½ mi. streets also grading, surfacing excess roads to Daley Corp., 4440 Boundary St., San Diego, **$131,000** and **$36,500** respectively.

†**Calif., Camp Roberts**—Con. Q.M., sidewalks, to N. M. Ball, Paso Robles, **$35,625.**

†**Calif., Point Loma**—Con. Q.M., Camp Callan, grading surfacing 7 mi. streets in grounds Fort Rosecrans, to Daley Corp., 4440 Boundary St., San Diego. **$256,269.**

Calif., San Francisco—Grading, asphalt, con. paving, vitr. sewers, to C. L. Harney, Call Bldg., **$326,500.**

Calif., San Jose—Santa Clara Co., asphaltic, concrete paving, San Carlos St., Sup. Dist. 4, to A. J. Raisch, 358 Lincoln Ave., San Jose. **$25,884.**

Idaho—At office A. C. Merritt, comr. P. Wks., Boise, imprv. 5 mi. road between New Perce and Mohler also $10.513 mi. Spirit Lake Hy., to Triangle Constr. Co., 1707 Crescent Rim Dr., Boise, **$29,147** and **$51,415** respectively; 9.358 mi. Lemhi Hy., to Dan J. Cavanaugh, Twin Falls, **$114,496.** Grand total $195,058. Rejected bids imprv. 19 mi. Elk River Hy. Bids 8/15. CD 8/11.

†**Ind., Burns City**—Yards & Docks, Navy Dpt., Wash., D. C., roads in naval area, WPA, **$188,854.**

Ia., Fort Madison—Paving city streets, to Hargrave Constr. Co., Cedar Rapids, **$153,282.**

Ia., Ottumwa—City, paving with asphalt, North Court St., to J. C. Blunk Constr. Co., Ottumwa. **$64,548.**

Kansas—State Hy. Dpt., Greensburg, imprv. 8.728 mi., Kiowa Co. to Guger & Rutherford, Leavenworth, **$97,341.** CD 8/5—ENR 8/7.

Massachusetts — Commonwealth of Mass. Dpt., P. Wks. H. L. MacDonald, Comr., 100 Nashua St., Boston, bituminous concrete pavement, near Attleboro, to Mack Construction Co., 10 Saratoga Ave., Providence, R. I., **$82,761.**

Mich., St. Joseph—Berrien Co. rd. Comm. grading, surfacing County Rd. 376 from Sodus toward Benton Harbor, to John Vermeulen, Eastern Ave., Benton Harbor. $19,927.

Minnesota—State Hy. Dpt., 1246 University Ave., St. Paul, imprv. 11.7 mi. between Junction T. H. 169 and Malmo to [illegible] Nelson & Co., Brainerd, **$42,941;** 11 mi., between Madeira and one mile s. of Searles, to Morrison & Co., 918 New York Bldg., St. Paul, **$71,830;** 4.6 mi., between Golden Valley and Robbinsdale, to J. W. Craig Co., 1814 NE. California St., Minneapolis, **$128,258.** Grand total $242,029. CD 7/30—ENR 8/7.

Mississippi—State Hy. Comm., Jackson, imprv. 11.627 mi. rd. and drainage structures, bridges Tishomingo Co., to Chandler Brothers, Virgilina, Va., **$220,003;** imprv. 4.127 mi. rd. and drainage structures, bridges Simpson Co., to E. W. Hable, Corsicana, Texas, **$138,701;** imprv. 0.726 mi. rd., drainage structures, overhead bridges, Marion Co., to Newsom Brothers, Columbia, Miss., **$129,809;** rejected bids August 26, imprv. 4.339 mi. rd., grading, drainage structures, bridges, Quitman Co.; imprv. 11.46 mi. rd., Washington and Bolivar Counties, imprv. 19.763 mi., Warren and Yazoo Counties; 2.312 mi., Marshall Co. Will readvertise. CD 8/13 and 8/14.

Montana—State Hy. Comn., Helena, H. W. Holmes, state hy. engr., imprv. 1.633 mi. Blaine Co., to Nilson-Smith Constr. Co., Great Falls, **$47,584;** 11.768 mi., Fallon Co., to Noar Brothers, Inc., Minneapolis, Minn., **$26,183;** 8.294 mi., Lincoln Co., to Carl Nyberg, Yardley, Wash., **$139,292;** 5.336 mi., Fergus Co., to Collison & Dolven, Inc., Billings, **$89,729;** bids rejected August 20, imprv. 7.115 mi., Wibax Co., will readvertise. CD 8/13. Grand total, **$302,788.**

New Jersey—Hudson Co., Court House, Jersey City, excavating, grading, paving, improv. various Co. roads, WPA. **$71,500.** P. Radigan Court House, WPA and Co. engr.

New Jersey—State of N. J., Dpt. Conservation & Development, State House, Trenton, excavating, grading, 6 in. gravel fire roads WPA. **$50,500.** G. R. Swinton, 930 Atlantic Ave., Atlantic City, Owners and WPA engr.

N. J., Bayonne—City, removing con. sidewalks, new catch basins, storm sewer laterals, hydrants, etc., widening bituminous surfacing con. curbs Ave. C. from 16 to 28 Streets, WPA. **$51,168.** H. A. Jaeger, City Hall, WPA and City, engr.

N. J., Irvington—Town, excavating, grading, paving new Civic Center, between Springfield Ave. and W. Clinton Ave., to T. Gallo, 1607 Springfield Ave. **$25,000.** I. J. Casey, Town Hall, engr.

N. J., Livingston—Excavating, grading, sidewalks, storm drains, gutters, various streets, WPA. **$72,000.** C. Malstrom, Orange & N. 6 St., WPA and Owners, engr.

N. J., Montclair—Town Hall, excavating, backfilling, grading, resetting flag walks, sanitary sewer, curb connections, storm drains various streets, **WPA. $72,000.** J. B. Hayden, Town Hall, owner's and WPA engr.

N. J., Newark—Excavating, grading, 6 in. con. base and 3 in. bituminous macadam surfacing, resetting curbs, catch basins, etc. various street, WPA. **$57,000.** G. Andress, City Hall, WPA and City, engr.

N. J., North Bergen—Town Hall, excavating, grading, bituminous surfacing, curbs, drainage, etc. various streets. WPA. **$61,500.** J. Muss, Town Hall, WPA and Town, engr.

N. J., West New York—Town Hall, excavating, grading, paving various streets, WPA. **$52,500.** C. Malstrom, Orange & N. 6 Streets, Newark, WPA and owners, engr.

†**N. C., Camp Davis**—Con. Q.M., 20 mi. 4 ft. sidewalks, to Brown Paving Co., 145 Brevard Ct., Chatlotte. **$30,347.**

North Dakota—State Hy. Dpt., Bismark, imprv. 6.1 mi., roads, Adams Co., to Northwestern Engineering Co., Rapid City, S. Dakota, **$52,633;** imprv. US Hy 12, Adams Co. to The Haggart Constr. Co., Fargo, N. Dakota, **$72,242;** imprv. 9.2 mi., Stark Co. to Inland Construction Co., 3867 Leavenworth St., Omaha, Nebr., **$52,642;** No bids received; 11.9 mi., Walsh and Grand Forks Counties. Grand total $177,517. CD 8/13.

Ohio — State Hy. Dpt., Columbus, imprv. 5.170 mi. Seneca and Wyandot Counties, to C. E. Edington & Sons, 1229 S. Main St., Findlay, **$99,788;** 28.77 mi., Clermont, Clinton and Warren Counties to C. J. Nible, New Vienna, **$42,543;** No bids received August 19, imprv. 1.677 mi., Lorain Co.; 5.371 mi., Allen Co.; 3.33 mi., Stark Co.; 4.767 mi., Clermont Co.; Bids rejected August 19, imprv. 4.16 mi., Ashtabula Co. CD 8/7—ENR 8/14.

†**Okla., Fort Sill**—Con. Q.M., rein.-con. sidewalks, military area, to Standard Paving Co., 2119 E 11 St., Tulsa. **$51,559.**

Pennsylvania—State Hy. Dpt., I. L. Hughes, secy., Harrisburg, road construction and repairs in Allegheny, Cambria, Clearfield, Delaware, Fayette, Lackawanna, Luzerne, Northumberland, Washington, Wayne and Westmoreland Counties. Rlief program, H. R. Davidson, administrator, State Capitol, Harrisburg. **$405,250.**

STREETS, etc. (Contracts Awarded, Cont'd.)

†**Pa., Indiantown Gap**—Con. Q.M., shale parking surfaces at Military Reservation, to A. A. White, Lebanon. **$26,152.**

Pa., Scranton—Dpt. P. Wks., W. P. Schunk, dir., imprv. Putnam St., catch basins, concrete ditch. Own forces **$25,000.** F. K. Derby, city engr.

★**South Dakota**—State Hy. Comn., Pierre, imprv. 11,233 mi. McCook Co., to E. A. Studer & Sons, Inc., Excelsior, Minn., **$54,458**; 8.952 mi. Tripp Co., to Northwestern Eng. Co., Rapid City, **$84,675***17.482 mi. Potter, Sully and Hughes Counties, to Northern Improvement Co., Fargo, N. D., **$109,923***14.107 mi. and 3.989 mi. both Hand Co., to J. L. Healy Constr. Co. and Lindekugel & Kolberg, Sioux Falls, and Spencer, **$110,412** and **$26,669** respectively***10.583 mi. Todd Co., to C. H. Lien Constr. Co. Rapid City, **$100,216.*** 12.043 mi. Butte and Lawrence Counties, to S. S. Roberts Constr. Co., Rapid City, **$76,854.** Grand total **$563,252.** Bids 8/12. CD 7/29.

Tex., Bonham — Fannin Co., c/o county judge, imprv. roads in boundary C.Q.M. depot and 13 mi. asphalt surface county roads, relief labor. **$70,611.**

†**Tex., Camp Barkeley**—Con. Q.M., rein.-con. sidewalks and draining military area, to Cage Bros. and J. F. Malcolm, Abilene. **$60,000.**

†**Tex., Camp Bowie**—Con. Q.M., hard standing parking areas and sidewalks, to F. Hall, Amicable Bldg., Waco. **$91,834.**

Tex., Farmersville — Imprv. streets, constructing underdrains on Hy. S-24, relief labor. **$70,143.**

Tex., Gainesville—City and Cook County, imprv., reconstructing 11 mi. county roads, also draining, grading and building athletic courts (outdoor) for city, relief labor. **$82,376.**

★†**Tex., Houston**—U. S. Eng., 1 and Douglas Sts., Wash., D. C., supplemental contract grading, draining, concrete paving Ellington Field, to Gulf Bitulithic Co., 2820 Polk St., Houston, Austin Road Co., 1813 Clarence St., Dallas, and Bitulithic Co., Dallas. **$1,877,795.**

†**Tex., Mineral Wells**—Con. Q.M., Camp Wolters, rein.-con. sidewalks and parking area paving, to Austin Bridge Co., 1813 Clarence St., Dallas, **$49,860.** CD 8/12—ENR 8/14.

†**Tex., San Antonio**—U. S. Eng., Galveston, permanent street paving, Kelly Field, to L. H. Lacy Co., 3009 N. Henderson St., Dallas. **$59,-500.**

★**Tex., Sherman**—Grayson Co., lateral roads and imprvs., relief labor, **$800,000.**

Utah—State Rd. Comn., Salt Lake City, imprv. .612 mi. hy. including steel I beam and concrete bridge, State hy. between Fort Duchesne and Vernal Uintah Co., to Young & Smith, 1678 Browning Ave., Salt Lake City. **$25,310.** Bids 8/19. CD 8/11.

Alta., Red River — Dominion Government, Ottawa, Ont., paving parade grounds, to Western Canadian Constr. Co., Ltd., Edmonton. Est. **$25,000.** Dpt. Munitions & Supply, Ottawa, Ont., engrs.

Alta., Suffield—Dpt. National Defense for Air., Ottawa, Ont., road surfacing at S.F.T. School, to F. R. Gibbs, Medicine Hat. **$27,000.**

B. C., Nelson—W. E. Wasson, municipal clk., paving various streets, day labor. **$30,000.**

Ont., Toronto—De Havilnad Aircraft of Canada, Ltd., Sheppard Ave., paving, draining and sodding at plant, North York Twp., to Geo. W. Porter Constr. Co., Ltd., Harbourt Comn. Bldg. Est. **$60,000.** D. Shephard, 57 Bloor St., W., engr.

Quebec—Provincial Government, Quebec City, graveling road, Courville Twp., to J. Drapeau, Malartic. Est. **$25,000.** E. Gohier, Dpt. Roads, Quebec City, engr.

EARTHWORK WATERWAYS

PROPOSED WORK

Calif., Redwood City—City Trustees, flood control, creek channels, ditch work, various areas. Over **$65,000.**

★†**Idaho, Idaho Falls**—Bureau Reclamation, Customhouse, Denver, Colo., south Fork reservoir at Calamity point above Swan Valley to supply supplemental irrigation water. $22,000,000.

†**Iowa**—U. S. Eng., 1709 Jackson St., Omaha, Neb., 6,190 ft. dikes and 6,592 ft. revetment in Missouri River between Louisville and Blair Bends, 7 mi. from River Sioux. $300,000.

N. J., East Orange—Excavating, grading banks, etc., imprv. 2 River flood control, $28,500. WPA. W. Willegarod, Town Hall, WPA and Town, engr.

†**North Carolina**—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D. C., cut off channel on Neuse River near bridge over Hy. 117, south of Goldsboro. $40,000.

†**O., Ashtabula**—U. S. Eng., Federal Bldg., Buffalo, N. Y., imprv. Ashtabula River, cutting new 16 ft. channel with bottom width 100 ft., exten. 1, 550 ft. upstream. $38,000.

Pa., Wilkes-Barre—G. B. Walker, city engr., City Hall, concrete retaining wall Hazel St. between Park Ave. and Moyallen St. $25,000.

Tex., Galveston—Galveston Co. plans election to vote on bonds, drainage work. $200,000. C. C. Washington, Courthouse, co. engr.

BIDS ASKED

Bids Asked after September 8

†**Pa., Hanover Twp.**—U. S. Eng., 332 Post Office Bldg., Baltimore, Solomon Creek Pumping Station for flood control purposes, Luzerne Co.

Bids Asked September 8

†**Pennsylvania**—U. S. Eng., Phila., exten. north jetty at Delaware River entrance to C & D Canal.

Bids Asked September 11

†**Texas**—U. S. Eng., Federal Bldg., Galveston, 650,000 cu. yd. dredging ferry slips and channels adjacent to Louisiana Texas Intracoastal waterway, near Fort O'Connor.

Bids Asked September 15

†**North Dakota**—Bureau Reclamation, Customhouse, Denver, Colo., 2,300 volt motor-control equip. for Buford-Trenton pumping plant, Buford-Trenton Project, Spec. 1559-D.

Bids Asked September 16

District Columbia and Virginia—U. S. Eng., 1 and Douglas Sts., Wash., D. C., dredging and disposing of 220,000 cu. yd. material from Washington Harbor, D. C., and 102,000 cu. yd. from Potomac River, at Alexandria, Va.; adv. ENR 9/4.

Mass., Salem—Commonwealth of Mass., Dpt. P. Wks., H. L. MacDonald, comr., 100 Nashua St., Boston, dredging 58,500 cu. yd., Diols Boat Yard, Salem Harbor. Over $30,000.

Bids Asked September 17

La., Crowley—Sixth Ward and Crowley D.D., L. A. Williams, secy., Crowley, dredging and re-dredging Drains C and H.

Bids Asked September 19

†**California**—Bureau Reclamation, Customhouse, Denver, Colo., transformers, for Units, 1, 2, 3, 4 and 5, Shasta power plant, Central Valley Project, Spec. 981. Extended date. CD 8/12—ENR 8/14.

Bids Asked September 22

†**California**—Bureau Reclamation, Old Post Office Bldg., Sacramento, earthwork, concrete lining, structures, Contra Costa Canal, Sta. 1993 plus 11 to Sta. 2321 plus 25, Delta Div., Central Valley Project, near Hookston, Spec. 987.

LOW BIDDERS

Illinois-Missouri—U. S. Eng., 816 Court House and Custom House, St. Louis, Mo., Aug. 21, 3,560 lin. ft. piling dikes Missouri Sister Island Thompson Towhead, Brooks Point, 11 to 28 mi. above mouth Ohio River in Mississippi River; 3,450 lin. ft. piling dikes, Price Towhead, Goose Island, 28 to 40 mi. above Ohio River; 5. 100 lin. ft. piking dikes Establishment Island, Fish Bend, Fort Chartres, 127 to 144 mi. above Ohio River; 1,100 lin. ft. bank protection, Cairo Protection, 0 to 8 mi. above Ohio River, 2,500 lin. ft. bank protection, Price Landing, Goose Island, 26 to 40 mi. above Ohio River; 1,000 lin. ft. bank Protection, Ste Genevieve, Ill., 116 to 127 mi. above Ohio River and 1,800 lin. ft. piling clump and crib dikes, Seventy-Six, 85 to 96 mi. above Ohio River, from W. P. McGeorge & Co., Pine Bluff, Ark., Item 1, **$105,060***** from Patton-Tully Transportation Co., North 2 St., Memphis, Tenn., Item 2, **$119,695***** from Massman-Peterman Co., 1205 Olive St., St. Louis, Mo., Item 3, **$175,620***** from Baggett Constr. Co., Memphis, Tenn., combined bids for Items No. 4 and 5, **$97,220***** from Woods Bros. Constr. Co., 132 S 13 St., Lincoln, Neb., Item 6, **$27,300**, Item 7, **$68,725.** CD 8/15.

La., Alexandria — Bd. Comrs., Red River, Atchafalaya and Bayou Bouef Levee Dist., 213 Commercial Bank Bldg., August 20, 28,100 lin. ft., Saline Lake Canal, Rapides Parish, from J. P. Gross, 863 Olga St., New Orleans. **$14,567.** CD 8/5—ENR 8/7.

†**New Jersey**—U. S. Eng., 17 Battery Pl., New York, N. Y., Aug. 22, dredging 466,300 cu. yd. material except ledge rock from Raritan River to Arthur Kill cut off channel, from Morris & Cumings Dredging Co., Inc., 44 Whitehall St., New York, N. Y. **$205,392.** CD 7/28—ENR 7/31.

Oregon-California — Bureau Reclamation, Customhouse, Denver, Colo., Aug. 25, pumping plant on Modoc unit, Tule Lake Division, Klamath irrigation project, Spec. 1539-D, from J. Gardner, Klamath Falls. **$37,232.** CD 8/5—ENR 8/7.

†**Oregon-Washington**—U. S. Eng., Pittock Blk., Portland, Ore., Aug. 27 dredging ship channel between Bonneville, Ore. and Vancouver, Wash., in Columbia River, from Puget Sound Bridge & Dredging Co., 2929 16 Ave., S.W., Seattle. **$365,912.** CD 8/7—ENR 8/14.

†**Texas**—U. S. Eng., Federal Bldg., Galveston, Aug. 21 dredging 1,068,000 cu. yd. material from Louisiana-Texas Intracoastal Waterway in Brazoria Co., 9.75 mi. long, from Jahncke Service, Inc., 814 Howard Ave., New Orleans, La. **$72,730.** CD 8/15.

CONTRACTS AWARDED

†**Kansas**—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., dredging or dragline Missouri River between Rulo and Little Platte Bends, near Atchison, hired labor and Government Plant. **$25,000.** CD 8/19—ENR 8/21.

N. J., Clifton—Excavating, grading, banks, etc., flood control along Weasel Brook. **WPA. $63,761.** C. Malstrom, Orange 7 N. 6 St., Newark, Owners and WPA engr. CD 7/25—ENR 7/31.

Pa., Wilkes Barre—City Council, L. K. Eldridge, clk., dredging creek, erecting embankments from Plains Twp. line to Central R.R. of N. J. tracks, own forces. **$20,000.** CD 7/28—ENR 7/31.

Tenn., Union City—Obion and Union Counties, c/o R. Horubeak, member bd., Union City, flood control. **$168,000. WPA.**

Tex., Raymondville—State, Fish, Game & Oyster Comn., Austin, Padre Island Pass, near here, 11,800 ft. long, channel force account. Est. **$25,000.** CD 6/20—ENR 7/3.

Utah, Helper—City Clerk, bank protection and flood control on Proce River. **WPA. $89,855.**

★†**Canal Zone**—Panama Canal Comn., 1435 K St., Wash., D. C., 4,000,000 bbls. portland cement for Third Locks Project, to Trinity Portland Cement Co., 111 West Monroe St., Chicago, Ill., **$5,400,000**; 2,000,000 bbls. to Lone Star Cement Co., 342 Madison Ave., New York, N. Y., **$2,790,000.** Bids 8/11. Noted CD 8/1—ENR 8/7.

Ont., Cobourg—Dominion Government, Ottawa, dredging, to McNamara Constr. Co., Ltd., 12 Industrial St., Leaside. **$18,000.**

Ont., Toronto—Secy. Dpt. P. Wks., Ottawa, dredging eastern channel, to McNamara Constr. Co., Ltd., 12 Industrial St., Leaside. Est. **$20,000.** CD 7/15.

Sask., Swift Current—Prarie Farm Rehabilitation, Admin., 910 McCallum Hill Bldg., Regina, key reservoir, to W. B. Ramsey, 2838 College Ave., Regina. **$135,280.**

UNCLASSIFIED

PROPOSED WORK

★†**Arizona**—POWER LINE—**Bureau Reclamation**, Customhouse, Denver, Colo., bids soon 110 mi. power line from Phoenix to Tucson. $700,000.

†**Calif., Muroc Lake**—GAS FUELING SYSTEM—U. S. Eng., 751 S. Figueroa St., Los Angeles, postponed indefinitely bids to have been opened Aug. 27. A. C. gas fueling sys. CD 8/19.

Calif., Wasco—SWIMMING POOL—Wasco Union High School Dist. voted bonds swimming pool on high school campus. $46,000. CD 7/31—ENR 8/7.

Conn., Bridgeport—SWIMMING POOL—City Brewster, Dpt. P. Wks., 50x150 and 25x40 ft. swimming pool and smaller wading pool, Brewster St. Playgrounds, Black Rock. $25,-000. H. L. Rowland, City Hall, engr.

†**Fla., Starke**—CAMP IMPROVEMENTS—Con. Q.M., general imprv. inside Camp Blanding. **WPA. $426,953.**

Ia., Des Moines — HANGAR — Hangar, Municipal Airport. $25,000.

Ia., Murray—Power plant and distr. sys. $80,000. A. S. Harrington, Baum Bldg., Omaha, Neb., engr.

Ia., Sigourney — TRANSMISSION LINES — T. I. P. Rural Electric Co-operative, Proj. 4, 150 mi. rural electric transmission lines, Tama, Iowa and Poweshiek Counties. $125,-000. J. W. Young, c/o company, engr.

Ia., Tipton—POOL—Municipal swimming pool. $25,000.

†**Kan., Fort Leavenworth**—RUNWAYS—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., exten. runways, Sherman Field. Over $25,000.

Louisiana—RURAL ELECTRIC LINES—Claiborne Elec. Coop., c/o T. Stevenson, Homer, 125 mi. rural electric lines, poles, meters, etc. $100,000. Freese & Nichols, Capps Bldg., Ft. Worth, Tex., engr.

Minn., Maple Lake—GENERATING UNIT—Rural Cooperative Power Assoc., N. E. Ryall, mgr., 2 addn. generating units, Power Plant, distribution sys., addnl. transmission lines, Hennepin Co., REA alloted. $185,000.

Miss., Bay St. Louis—GAS DISTRIBUTING SYSTEM—G. G. Blaize, mayor, voted bonds gas distr. sys. $80,000.

Mont., Miles City—RUNWAYS—City, exten. runway 150x200 ft., paving 150x4,600 ft. runway and constructing taxiway, etc. CAA. $123,800.

Neb., Fremont—SWIMMING POOL—A. J. Forman, clk., voted $29,000 bonds, swimming pool, $70,000. CD 8/4—ENR 8/7.

†**New Jersey**—ELECTRIFICATION SYSTEM—Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., electrification sys. power generating station, transmission lines between Lakehurst Naval Station and Fort Dix.

N. J., Bayonne—City, stone masonry wall on 20 in. piles. $61,500. WPA. H. A. Jaeger, City Hall, City and WPA engr.

N. J., Newark—AIRPORT IMPROVEMENTS—City, excavating, grading, landscaping, drainage, etc., $65,000. WPA. A. Armstrong, Administration Bldg., Newark Airport, WPA and Owners engr.

N. J., Nutley—PARKS—Town, retaining walls, paths, courts, landscaping, etc., $60,000. WPA. Dudley Shepherd, Town Hall, Town, WPA engr.

UNCLASSIFIED (Proposed Work, Cont'd.)

N. J., Pedricktown—GROUND IMPROVEMENT—War Dpt., 20 St. and Constitution Ave., N. W., Wash., D. C., imprv. grounds and facilities at Delaware Ordnance Depot. $65,000. WPA.

New York — TRANSMISSION LINES — Niagara, Lockport & Ontario Power Co., Electric Bldg., Buffalo, and Fredonia, exten., imprv. transmission and service lines, various sections rural areas in Chautauqua and Erie Counties. Over $40,000.

N. Y., Jamestown — HANGAR — Municipal Airport Comn., D. H. McGeorge, secy., City Hall, additional hangar, shop, etc., airport, North Main St. Extension. C. J. Strandburg, city engr.

N. Y., Randolph—GAS DISTRIBUTING SYSTEM—Deagan & Good, Olean, natural gas distr. sys., connecting lines to gas field, South Valley Twp. $30,000-$50,000.

★**†O., Dayton**—AIRFIELD—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., 2 story, 450x500 ft., brick maintenance command building, Patterson Field. $2,000,000. J. Gordon Turnbull, 1301 Citizens Bldg., Cleveland, engr.

Oklahoma — SUB-STATIONS — Grand River Dam Authority, Vinita, sub-stations, transformers, transmission lines, furnishing power to Cookson Hill Army Cantonment at Muskogee & Braggs, $146,000. W. R. Holway, Vinita, engr. Application filed with PWA.

Pennsylvania—TELEPHONE LINES, etc.—Bethel & Mt. Aetna Telephone & Telegraph Co., H. W. Himmelberger, secy., Myerstown, exten., imprv. lines etc. Berks and Lebanon Counties. $50,000.

†Pa., Middletown—U. S. Eng., Wash., D. C., expanding heating facilities at Olmstead Field. $485,000.

Tenn., Springfield—GAS PLANT—A. F. Engll and Co., Houston, Texas, J. Boyd, local mgr., natural gas plant and distribution sys.

Tex., Denton—AIRPORT—Voted $65,000 bonds airport, incl. hangar, shop, etc. CD 8/13.

Tex., Denton—SWIMMING POOL—Voted $50,000 bonds rein.-on. swimming pool, recreation park imprvs., athletic courts, etc. CD 8/13.

Tex., Galveston—RECREATIONAL PARK—Galveston Co., plans park, incl. grading, draining athletic courts, swimming pool, etc. $125,000. C. C. Washington, Courthouse, co. engr.

Tex., Greenville—AIRPORT—U. S. Eng., Federal Bldg., Galveston, clearing, grubbing, paving runways, taxiways, etc. airport. $470,000. CAA. CD 8/21—ENR 8/28.

†Tex., Harlingen—BOMBING RANGE—U. S. Eng., Santa Fe Ry. Bldg., Galveston, developing 27,500 acre bombing range. $250,000.

†Va., Langley Field — IMPACT BASIN — National Advisory Com. for Aeronautics, Langley Field, plans 360 ft. concrete impact basin, 24 ft. wide, 11 ft. deep.

†Washington — POWER LINE — Bonneville Power Admin., 811 N.E. Oregon St., Portland, Ore., 47 mi. power line through Yakima and Benton Counties, also 2 substations.

Washington — RURAL ELECTRIC LINE — Inland Empire Rural Electrification, Inc., Hutton Bldg., Spokane, 60 mi. addn. to rural electric distr. sys., Garfield Co. $50,000.

Washington—SHIPYARD—West Coast Shipbuilding Corp., c/o G. W. Klinefelter, 1823 E. Alder St., Seattle, shipyard, Southwestern Washington. $40,000.

Wash., Bremerton — FERRY SLIP — City, plans ferry slip. Over $50,000.

†Wash., McChord Field (Tacoma) — CONCRETE RUNWAYS — U. S. Eng., Central Bldg., Seattle, concrete runway.

†Wash., Neah Bay — NAVAL SECTION BASE—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Naval Section Base for repair small naval craft, with barracks, mess hall, shop, etc.

†Wash., Oak Harbor—PIER—Navy Dpt., 18 St. and Constitution Ave., N. W., Wash., D. C., pier for new naval air station. $400,000.

Wash., Spokane — ROUNDHOUSE IMPROVEMENTS—Great Northern Ry. Co., C. M. Nye, ch. engr., 175 E. 4 St., St. Paul, Minn., new 8 tracks and roundhouse imprv. $50,000.

Wash., Walla Walla—RUNWAYS—U. S. Eng., Pittock Blk., Portland, Ore., bids this fall exten. runway 150x800 ft., taxiway, grading, draining, paving, for City, CAA. $59,000.

W. Va., Maidsville—COAL LOADING DOCK, etc.—Interstate Engineers & Constructors, Inc., Miadsville, coal loading dock, marine terminal, left bank Monongahela River, incl. tipple, conveyor, pile mooring clusters, etc. Over $25,000.

Wisconsin—TRANSMISSION LINES—Northern States Power Co., 3 phase electric transmission line, Sparta to Blair, $152,510.

Wis., Alma—RURAL ELECTRIC TRANSMISSION LINES—Buffalo Electric Co-operative, 57 mi. rural electric transmission lines Buffalo and Trempealeau Counties, $37,000. Wisconsin Development Auth., 602 Tenney Bldg., Madison, engr.

Wis., Green Bay—DOCK—City, Bd. P. Wks., plans, 1 story 80x140 ft. 1 Dock Bldg., F. J. Steeno, city engr.

Wis., West Allis—PLAYGROUNDS—City, field houses, 6 playgrounds, defense recreation center, addnl. garbage incinerator, outdoor swimming pool, $435,000. P. Burbach, city engr.

†Alaska, Anchorage—GASOLINE FUELING SYSTEM—U. S. Engineers, Central Bldg., Seattle, Wash., bids soon gasoline fueling sys., Elmendorf Field.

B. C., Vancouver—AIRPORT—Municipality, c/o J. W. Cornett, mayor, enlarging civic airport, Sea Island. $150,000. Dpt. Transport, Ottawa, Ont., engrs.

Man., Petrie—HANGAR—Dominion Government, Ottawa, Ont., hangar, etc. $100,000. Dpt. Air Defense, Ottawa, Ont., archt. Dpt. Munitions & Supply, Ottawa, Ont., engr.

Ont., Arnprior — FLYING TRAINING SCHOOL—Dominion Govt., Ottawa, flying training school. $170,000. Dpt. Transport, Ottawa, engrs.

Ont., Bowmanville — FLYING SCHOOL — Dominion Government, Ottawa, to Flying Training School addn. $150,000. Dpt. Air Defense, Ottawa, archts. Dpt. Munitions & Supply, Ottawa, engrs.

Ont., Exeter — AIRPORT — Dpt. Transport and National Defense for Air., Ottawa, developing airport for S.F.T. School. $425,000.

Ont., Hamilton—PIPE LINE, etc.—National Steel Corp., 7 Kenilworth Ave., pipe line and trestle. $30,000.

Ont., Hamilton—STADIUM—J. F. Berry, city clk. rein.-con., steel stadium. $40,000. Parks Bd., City Hall, engrs.

Ont., Porquis Junction—AIRPORT—Trans-Canada Air Lines, Ltd., 355 McGill St., Montreal, Que., enlarging emergency airport. $75,000.

Ont., Toronto—AIRPORT—Royal Norwegian Air Force, 341 Church St., plans by Forsey, Page & Steele, 20 St. Clair Ave., W., 200x72x 30 ft. office and barracks on Island Airport. $150,000.

Que., Montreal—PLAYGROUND, etc.—J. E. Gauthier, city clk., playground and park in Park exten. $30,000.

Que., Montreal—SWIMMING POOL—J. E. Gauthier, city clk., open air swimming pool, Notre Dame de Grace Ward. $40,000.

Sask., Saskatoon—AIR TRAINING SCHOOL—Dominion Government, Ottawa, Ont., remodeling buildings air training school, Bedford Rd. $150,000. Dpt. Munitions & Supply.

BIDS ASKED

Bids Asked September 11

†Washington — CONDUCTOR — Bonneville Power Admin., P. O. Box 3537, Portland, Ore., 625,000 ft. conductor, etc. Bonneville-Vancouver 115 kv. line No. 5 (circuits 5 and 6), Incl. No. 2208.

Bids Asked September 12

†Colorado—VALVES — Bureau Reclamation, Customhouse, Denver, Colo., two 44 in. regulating tube valves for outlet works at Green Mountain Dam, Colorado-Big Thompson Project, Spec. 1558-D.

Bids Asked September 16

†Oregon—SAND and GRAVEL—Bureau Reclamation, Customhouse, Denver, Colo., 10,000 tons sand and 16,000 tons gravel for North Unit Main Canal and 850 tons sand and 1,300 tons gravel for Cove power plant enlargement, Deschutes Project, Spec. 1561-D.

Bids Asked September 22

†California — CONDUIT LININGS — Bureau Reclamation, Customhouse, Denver, Colo., 18 sets of 102 in. tube valve conduit linings for river outlets at Shasta Dam, Central Valley Project, Spec. 988.

Bids Asked September 23

South Carolina—TRANSMISSION LINES—South Carolina Public Service Auth., at office Secretary, Peoples Bldg., Charleston, constructing Bowman transmission lines, Santee-Cooper Project, Docket 4329-P-R.

Bids Asked October 15

★**Colorado**—RURAL TRANSMISSION LINES — High Line Electric Assoc., Holyoke, 939.17 mi. transmission lines. $777,000. REA. Rocky Mountain Engr. Co., Denver, engr. CD 8/21—ENR 8/28.

LOW BIDDERS

Ariz., Yuma — AIRPORT IMPROVEMENTS —U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Aug. 23, grading, paving Yuma Airport, from Tanner Constr. Co., P. O. Box 1832, Phoenix. $14,067. CD 8/8—ENR 8/14.

Utah, Ogden—AIRPORT—U. S. Eng., Los Angeles, August 22, supervising, grading and paving municipal airport, from W. W. Clyde & Co., Springville. $278,372. CD 8/13.

Utah, Salt Lake City — AIRPORT — U. S. Eng., Los Angeles, August 22, imprv. municipal airport, from Gibbons & Reed Co., Salt Lake City. $182,159. CD 8/12—ENR 8/14.

†Washington—SUBSTATION CONDENSERS —Bonneville power Admin., P. O. Box 3537, Portland, Ore., Aug. 26, 35,000 kva synchronous condensers for substations at Ampere and Covington, Inv. 2115, from Westinghouse Electric Mfg. Co., Union Bank Bldg., Pittsburgh, Pa. $347,240. CD 8/15.

†Washington — TRANSMISSION LINES — Bonneville Power Admin., P. O. Box 3537, Portland, Ore., crossarm fixtures and X-brace fixtures for Coulee-Spokane transmission line, Inv. 2157, from General Electric Supply Corp., 230 N.W. Bway., Portland, Ore., Westinghouse Electric Co., 809 N.W. Flanders St., Portland, Ore., and Ohio Brass Co., Mansfield, O., each bid $32,366. Bids 8/22. CD 8/13.

CONTRACTS AWARDED

★**†Ala., Mobile**—SHIPWAYS—United States Maritime Comn., 14 St. between E and Constitution Ave., N.W., Wash., D. C., 8 shipways, shops, etc., to Alabama Shipbuilding & Dry Dock Co., Mobile. $8,000,000.

★**†Calif., Los Angeles**—SHIPWAYS—United States Maritime Comn., 14 St. between E. St. and Constitution Ave., N.W., Wash., D. C., 4 ship ways, shops, equip., etc., to Consolidated Steel Corp., Ltd., 5700 S. Eastern Ave. $4,000,000.

†Fla., Ocala—FLYING SCHOOL—U. S. Eng. 1 and Douglas Sts., N.W., Wash., D. C., Greenville Aviation School near here, to F. S. Hanley and K. A. Sputgeon, both Muncie. $250,000. Awarded 8/20.

†Ga., Albany—GASOLINE AND OIL STORAGE—U. S. Eng., 1 and Douglas Sts., N.W., Wash., D. C., gasoline ad oil storage and district system at Air Corp. Flying School, to Hardaway Constr. Co., 15 11 St., Columbus. $104,000.

Idaho, Idaho Falls—AIR TERMINAL—City, taxiway, aprons, warming up platforms to municipal air terminal, WPA. $51,386. CD 4/7—ENR 4/10.

★**†La., New Orleans**—SHIPWAYS—United States Maritime Comn., 14 St. between E St. and Constitution Ave., N.W., Wash., D. C., 2 ship ways, to Delta Shipbuilding Co., New Orleans. $2,000,000.

★**†Me., South Portland**—SHIPWAYS—United States Maritime Comn., 14 St. between E and Constitution Ave., N.W., Wash., D. C., 2 ship ways, shops, equip. to South Portland Shipbuilding Co. $2,000,000.

★**†Md., Sparrows Point**—SHIPWAYS—United States Maritime Comn., 14 St. between E St. and Constitution Ave., N.W., Wash., D. C., 2 ship ways, shops, equipment, etc., to Bethlehem Steel Co., Sparrows Point. $2,000,000.

★**†Miss., Pascagoula** — SHIPWAYS — United States Maritime Comn., 14 St. between E St. and Constitution Ave., N.W., Wash., D. C., 2 shipways, shops, equip., etc. to Ingalls Shipbuilding Co., Pascagoula. $2,000,000.

New Jersey—PARK IMPROVEMENTS—Essex Co., Park Comn., 115 Clifton Ave., Newark, excavating, grading, landscaping etc., various parks, WPA. $60,500. CD 7/23—ENR 7/31

N. J., Bayonne—PARK IMPROVEMENTS—City Hall, paths, retaining walls, roads, courts etc., WPA. $65,000. H. A. Jaeger, City Hall, City and WPA, engr.

N. Y., Long Island City—PLATFORMS—Pennsylvania R.R., W. D. Wiggins, ch. engr., Broad St. Station, Phila., Pa., concrete platforms to Senior & Palmer, 50 Church St., New York City. Est. $40,000.

†N. Y., Pine Camp—AIR FIELD IMPROVEMENTS—Con. Q.M., housing and miscellaneous facilities at air Field for 4th Armored Division, to Senior & Palmer, 50 Church St., New York. $408,500.

N. C., Wilmington—AIRPORT—New Hanover Co., imprv. airport, WPA. $398,000.

Okla., Bethany — FEEDER LINES — Oklahoma Natural Gas Co., 401 N. Harvey St., natural gas distr. feeder lines. Own forces. $25,000.

Pa., Reading—RAILROAD—City, Pennsylvania R.R., W. D. Wiggins, ch. engr., 2417 Pennsylvania Blvd., Broad St. Station, Phila., and Reading Co., lowering tracks, 2 railroads along Canal St., regrading street and repaving, day labor and own forces. Est. $25,000. CD 7/14—ENR 7/17.

Tex., Alvarado—BLEACHERS, etc.—bleachers, courts, grading, sodding, landscaping school campus, water and sewer lines, relief labor, $66,067.

Tex., Ballinger—LANDING FIELD—F. Harman, San Marcos and Ballinger, c/o Harman Flying School, additional landing field imprvs. and hangars, Force account. $54,067. CD 8/22—ENR 8/28.

†Tex., Camp Wolters—SPORTS AREXA—Con. Q.M., 1 story sports arena, to C. S. Oates & Son, Abilene. $82,895.

★**Tex., Freeport**—PIPE LINES—Dow Chemical Co., Midland, Mich., and Freeport, Tex., sys. collecting pipe lines from gas wells to tie into main line to Freeport Plant, to Austin Co. and M. K. Kellogg Co., M & M Bldg., Houston, $750,000. Est. $1,000,000.

†Tex., Harlingen—TRACKS—U. S. Eng. Galveston, railway spur tracks, Air Corps Training School, to H. B. Zachry and J. E. Morgan & Sons, Builders Exch., San Antonio. $68,000.

Tex., Waco — AIRPORT — Buildings and ground imprvs., municipal airport, relief labor. $109,697.

N. S., Dartmouth—AIR STATION—Dpt. National Defense for Air., Ottawa, Ont., various buildings at R.C.A.F. Station, to Atlantic Constr. Co., Ltd., Roy Bldg., Barrington St., Halifax. $300,000.

UNCLASSIFIED (Contracts Awarded, Cont'd.)

N. S., Halifax—WHARF—National Harbours Bd., Ottawa, Ont., portion lighterage wharf at Fish Pier, to T. C. Gorman, Nova Scotia, Ltd., Halifax. **$62,177.** CD 7/16—ENR 7/24.

N. S., Sydney—AIR STATION—Dpt. National Defense for Air, Ottawa, Ont., buildings at R.C.A.F. Station to T. C. Gorman Constr. Co., Ltd., 1440 St. Catherine St., W., Montreal. **$300,000.**

Ont., Jarvis—AERODROME—Dpt. Transport, Ottawa, Ont., additional developing of aerodrome at Gunnery and bombing school, grading, draining, constructing hard surfaced runways, to Dufferin Paving & Crushed Stone, Ltd., Fleet St., W., Toronto. Est **$70,000.**

Que., Quebec—SHIPYARD—Morton Engineering and Drydock, Ltd., Louis Embankment, shipyard and dry dock plant, to Mathieu & Sylvani, 44 Ste. Ursule St.; leveling and grading to W. Harney, Loreteville. Est. **$200,000.** CD 7/22—ENR 7/31.

★**Sask., Esteban** — FLYING FIELDS — Dpt. Transport and National Defense for Air., Ottawa, Ont., one main and 1 auxiliary flying field for S.F.T. School to Carter-Halls-Aldinger Co., Ltd., Victoria and Lindsay Sts., Regina. **$775,000.**

LATIN AMERICA

Mexico—Mexican Government, Scrita. de A Y F, Mexico D.F., government sugar central with 600 ton daily grinding capacity at Palizada $205,000***maternity hospital, Mexico City, $313,000***Dpt. Salubridad Publica, Mexico, D.F., Mexico, 3 tuberculosis hospitals, at Huopulco, Perote, Vera Cruz state, and Guardalajara, Jalisco, state. $725,000.

Netherland West Indies, Curacao—Curacao Petroleum Co., Curacao, 600 ft. drydock, own forces.

PUBLIC BUILDINGS

PROPOSED WORK

★**†Ala., Birmingham** — Republic Steel Co., Oliver Bldg., Pittsburgh, Pa., plant for production pig iron. Defense Plant Corp. will finance.

★**Ark., Batesville** — Northeastern Arkansas Housing Auth., low cost houses, 15 northeast Arkansas counties. $500,000.

Ark., Little Rock—State Dpt. Educ., office bldg., State Capitol Grounds. $300,000.

★**Ark., Monticello**—South East Ark. Housing Auth., c/o V. B. McClay, low cost houses, 13 southeast Arkansas counties. $500,000.

Ark., Van Buren—E. B. Ward, Co. Judge, hospital. E. Price, Van Buren, archt.

Calif., Los Angeles—Los Angeles Housing Auth., 1031 S. Broadway, 100 unit Rose Hill Courts Housing Proj. W. F. Ruck & C. Beelman, 1019 Union Bank Bldg., archts. $300,000.

★**Calif., San Francisco**—Housing Authority Directors of City and County of San Francisco, 525 Market St., no bids received August 26, De Haro Plaza low-rent housing proj., Cal. 1-9. $600,000. CD 7/29—ENR 7/31.

Calif., Wasco — Wasco Union High School Dist., swimming pool at school plant. $50,000.

★**Conn., Norwich** — E. Hallman, chn. Bd. Educ., brick, steel trade school. $600,000.

★**Fla., Jacksonville**—Duval Co. School Bd. planning schools, Lake Shore, North Shore and South Jacksonville; school, Venelia, and Fishweir School addn. $3,000,000. Reynolds, Brenton, Smith & Hills, Duval Bldg., engrs. and archts.

Idaho, Pocatello—Pocatello Housing Auth., low cost housing project. $350,000. USHA funds allotted. CD 8/6—ENR 8/14.

Ill., Arcola—Bd. Educ., plans by Engineering Service, Inc., Decatur, rebuilding high school, Arcola Twp. $250,000.

★**†Ill., Marion**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., shell loading ordnance plant. $40,000,000. Chas. W. Cole & Son, South Bend, archts. and engrs.

†Ill., Rantoul—City of Rantoul, H. L. Wood, clk., recreational center, Chanute Field. $125,-000. **FWA.**

†Ill., Rockford — City of Rockford, E. O. Strand, clk., remodeling recreation center, Camp Grant. $35,000. **FWA.**

†Ill., Rockford—W. F. and John Barnes Co., 301 S. Water St., shell casings factory for War Dpt. Est. $150,000.

†Ill., Waukegan—City of Waukegan, E. R. Holmberg, clk., recreation center, Great Lakes Training Station and Fort Sheridan. $111,600. **FWA.** W. A. Ganster, 7 S. County St., archt.

★**†Ia., Ankeny**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., plans by Smith, Hinchman & Grylls, Inc., 800 Marquette Bldg., Detroit, Mich., small arms plant, $10,000,000; plans by H. R. Green Eng. Co., 417 1 Ave. S.E., Cedar Rapids, utilities. $7,-000,000.

Ia., Slater—P. Rood, city clk., vote September 8 on construction light plant. $65,000.

R. W. Gearhart, 349 21 St. S.E., Cedar Rapids, engr. CD 7/2—ENR 7/10.

Kan., Kansas City — Prairie School Dist., Johnson Co., RFD Kansas City, election September 6, $100,000 bonds, school addn. $300,-000. Keene & Simpson, Land Bank Bldg., Kansas City, archts. CD 8/6—ENR 8/14.

Mass., Braintree—C. E. Fisher, Supt. Schools, Town Hall, July 29, bids 3 story, bsmnt., 84x110 ft. high school. Project indefinitely postponed. $250,000. CD 8/21—ENR 8/7, under LB.

★**†Mich., Adrian**—Bohn Aluminum & Brass Corp., 1400 Lafayette Bldg., Detroit, plans for manufacture aircraft parts for War Dpt. $224,836 for land and buildings and $371,627 for equip. Defense Plant Corp. will finance.

†Mich., Detroit—Bohn Aluminum & Brass Corp., 1400 Lafayette Bldg., plant for manufacture of aircraft parts for War Dpt., $96,742 for land and buildings, $192,360 for equip. Defense Plant Corp. will finance.

Mich., Saginaw—Eaton Mfg. Co., Wilcox-Rich Div., 739 E. 140 St., Cleveland, O., plant for manufacture aircraft parts for War Dpt. $406,700 for land and buildings, $58,535 for machinery and equip. Defense Plant Corp. will finance.

Mo., Maryland Heights (P. O. St. Louis Co.)—Maryland Heights School Dist., Maryland Heights, St. Louis County, brick, concrete high school bldg. $155,393. FWA grant sought.

Mo., Robertson—Berkeley School Dist. 5 and Hancock Robertson, St. Louis County, brick, con. high school $157,841, and brick school $99,862. FWA grant sought.

†Neb., Fort Crook—U. S. Eng., 1709 Jackson Bldg., Omaha, 1 story, 100x400 ft. paint shop at bombing plant. $700,000.

★**N. J., Camden**—South Jersey Transit Authority, 623 Cooper St., terminal extension. $2,500,000.

★**N. Y., Buffalo**—Buffalo Municipal Housing Auth., 392 Perry St., plans by Backus, Crane & Love, 360 Delaware Ave., additional housing project, 200 units, for negroes. $750,-000. CD 7/29—ENR 7/31.

★**N. Y., Buffalo**—Dpt. P. Wks., City Hall, plans Meyer Memorial Hospital. $687,500. Engineer and architect not appointed.

N. Y., Tittusville—Bd. Educ., plans by Beck & Tinkham, Bewley Bldg., Jamestown, high school. $150,000.

★**N. C., Greensboro** — Greensboro Housing Auth., R. Waren, executive dir., 300 units. $1,000,000. C. C. Hartmann, J. J. Sawyer and L. McMinn, Greensboro, archts. CD 8/2—ENR 8/7.

★**†O., Cleveland**—Republic Steel Co., Oliver Bldg., Pittsburgh, Pa., plant for production pig iron. Defense Plant Corp. will finance.

O., Curtice—Allen Twp. Rural School Dist., L. H. Henningsen, clk., $150,000 defeated bonds school. CD 7/21—ENR 7/24.

†O., Dayton — Veterans Admin., Arlington Bldg., Wash., D. C., rejected bids Aug. 19, Domiciliary Theatre Bldg. 29. CD 8/22—ENR 2/28, under LB.

†O., Elyria—Romec Pump Co., 333 E. Bridge St., plant for manufacture of aircraft equip. for Navy Dpt. $89,200 for land and buildings, $207,655 for machinery and equip. Defense Plant Corp. will finance.

★**O., Troy**—Bd. Comrs. Miami Co., election September 9, whether to accept $1,250,-000 gift for county hospital and provide funds for support. T. C. Freshman, co. engr. CD 2/14—ENR 2/20.

★**†O., Warren** — Republic Steel Co., Oliver Bldg., Pittsburgh, Pa., plant for production pig iron. Defense Plant Corp. will finance. $3,000,000-$4,000,000.

★**†O., Youngstown**—Republic Steel Co., Oliver Bldg., Pittsburgh, Pa., plant for production pig iron. Defense Plant Corp. will finance.

†Okla., El Reno—Dpt. Justice, Constitution Ave. between 9 and 10 Sts. N.W., Wash., D. C., auto shop at Southwestern Reformatory. $35,-000. Parr & Anderhold, Hales Bldg., Oklahoma City, archts.

Okla., Norman—City, Bd. Educ., high school addn. $200,000. Winkler & Reid, Okla. Saving and Land Bank Bldg., Oklahoma City, archts.

†Pa., Allentown—National Youth Admin., 15 St. and New York Ave., Wash., D. C., 1 story, concrete vocational training school. $88,000. H. F. Everett Associates, archts.

★**Pa., Erie**—Erie Housing Auth., M. A. Zurn, chn., rejected bids July 29, 224 homes, Harbor Homes Housing Project. Will readvertise soon. CD 7/31—ENR 8/7, under LB.

★**Pa., Johnstown**—Johnstown City Housing Auth., sketches by H. A. Bailey, 105-6 Medea Bldg., Sect. 1 housing project, Pa. 19-1, Prospect Hill above Ihmsen Ave. $500,000. CD 6/18—ENR 6/26.

★**R. I., Newport**—Brick, steel, concrete high school. $1,200,000.

★**R. I., Providence** — Providence Housing Auth., D. Barry, chn., 4 Weybosset St., rejected bids August 19, 120 dwelling unit, Codding Court, Proj. USHA RI 1-3, and 278 dwelling unit, Admiral Terrace, Proj. USHA RI 1-1A. CD 8/20—ENR 8/28.

★**†Tenn., Memphis**—Tennessee Powder Co., c/o E. I. Dupont de Nemours & Co., Du-Pont Bldg., Wilmington, Del., plant for manufacture of powder for War Dpt., $550,000. Defense Plant Corp. will finance.

Tex., Denton—Voted $175,000 bonds, school. CD 8/13.

†Tex., El Paso—City of El Paso, recreational building, incl. swimming pool, etc. $40,000. **FWA.** Frazer & Benner, 705 El Paso Natl. Bank Bldg., archts.

Tex., Galveston—Galveston Co. plans election to vote on bonds, county hospital. $350,-000.

Tex., Galveston—Bd. Educ., school. $325,000.

★**†Tex., Houston**—War Dpt., 20 St. and Constitution Ave., Wash., D. C., construction, equipping chemical plant for production chloride or similar products used for manufacture poison gas. $4,200,000. Defense Plant Corp. will finance.

Tex., McAllen—McAllen Independent School Dist. plans by J. B. Handley, 4205 Leeland St. and J. R. Bailey, 2602 Main St., Houston, 20 room school. $150,000.

Tex., Rockport—Aransas Co., plans by G. M. Smith, De Haven Pitts & C. T. Weidner, Alamo Bldg., San Antonio, monolithic concrete county hospital. $150,000.

Tex., Rockport — Rockport Independent School Dist., plans by Smith, Pitts & Weidner, Maverick Bldg., San Antonio, school. $150,000.

Va., Norfolk—City of Newport News, plans by Cooke & Van Leeuwen, Arcade Bldg., addn. to Leigh Memorial Hospital. $348,300. **FWA.** CD 8/21.

†Wash., Everett—Pub. Bldgs. Admin., 9 and D Sts. S.W., Wash., D. C., returned unopened bids to have been opened Aug. 22, 85 housing units. Project transferred to U. S. Defense Housing Div., Wash., D. C., will be redesigned. CD 8/8—ENR 8/14.

†Wash., Keyport—Puget Sound Navy Yard, Bremerton, 60x121 ft. rein.-con. fdry., pattern building, 124x300 ft. machine shop addn., Spec. 10602.

N. S., Kentville—Dominion Government, Ottawa, Ont., packing and cold storage plant. $50,000. Dpt. P. Wks., Ottawa, Ont., engrs.

Que., Longueuil—Roman Catholic School Comn., Coteau Rouge, plans by M. Cing-Mars, 2 Ave., brick, concrete school, concrete fdn.

Ont., St. Catherines—Wartime Housing, Ltd., 55 York St., Toronto, 100 prefabricated houses, Victoria Park Project. $200,000.

BIDS ASKED

Bids Asked September 8

Md., Curtis Bay—Fairfield (Sta. Baltimore) Baltimore Housing Auth., 709 E. Eager St., Baltimore, 500 defense housing units for USHA, 18097-X. Bids 8/18 rejected. CD 8/20—ENR 8/28.

†N. J., Metuchen—Con. Q.M., Raritan Arsenal, shipping and packing building, C.A. 6190-42-3.

Bids Asked September 9

Ill., Chicago—Chicago Housing Auth., 208 S. La Salle St., 586 homes, for USHA, Project 2-2R. CD 8/22.

†Ill., Savanna—Con. Q.M., Savanna Ordnance Depot, Proving Ground, altering administration building; adv. ENR 9/4.

Bids Asked September 11

†Calif., San Diego—Eleventh Naval Dist., foot Bway., ten family, 2 story apartment, 1 story quarters, garage, etc., at Direction Finder Station. Spec. 10403.

Bids Asked September 12

Idaho, Moscow—State Dpt. P. Wks., Boise, dairy bldg., University of Idaho. $95,000.

†Md., Beltsville—Dpt. Agriculture, The Mall, 12 to 14 Sts., Wash., D. C., central heating plant addn., at U. S. Horticultural Station.

Bids Asked September 15

★**†Tex., San Antonio**—U. S. Eng., Santa Fe Ry Bldg., Galveston, 38 buildings and utilities, hospital area use, at Kelly Field. $940,000.

Bids Asked September 16

†N. Y., Iona Island—Pub. Wks. Officer, 3rd Naval Dist. 90 Church St., New York, administration building, Naval Ammunition Depot, Spec. 10516.

N. Y., New York—Dpt. P. Wks., Municipal Bldg., out-patient department addn. and alterations, Lincoln Hospital, Bronx Boro.

Bids Asked September 17

N. J., Chatham—Bd. Educ., Town Hall, 2 story, part-bsmnt., 80x124 ft. and 24x34 ft., brick, limestone, school, Elm Place, $150,000. F. A. Elsasser, 100 Stuyvesant Ave., Union, archt., Runyon & Carey, 33 Fulton St., Newark, engr.

PUBLIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked September 22

★**Tex., Dallas**—Dallas Housing Auth., 2525 Lucas Dr., 220 low rent housing units, Cedar Springs, Tex, 9-3, for USHA. $700,000. A. E. Thomas, W. S. Sharp, H. Welch, Construction Bldg., archts. Noted CD 7/29—ENR 7/31.

Bids Asked September 23

N. J., Irvington—Town Hall, 1 story, bsmnt., brick, steel Irvington General Hospital addn. $150,000. V. H. Stromback, 1243 Springfield Ave., archt. Bids June 24 rejected. CD 7/1—ENR 7/10 under LB.

†Okla., Shawnee—Bur. Indian Affairs, Dpt. Interior, Wash., D. C., auditorium and laboratory, Shawnee Sanatarium. CD 1/21—ENR 1/23.

Bids Asked September 24

D. C., Wash.—Alley Dwelling Auth., 1300 E. St., N.W., Parkside Dwelling housing Project DC 1-11, Barnes Lane between Kenilworth Ave. and Fort Drive.

Bids Asked September 26

Minn., Austin—City, steam generating unit, $200,000. Helmick, Edeskuty & Lutz, 412 Essex Bldg., Minneapolis, engrs.

Bids Asked about October 1

Pa., Aliquippa—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 50 defense housing units for USHA. A Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. CD 7/30—ENR 8/7, under Beaver.

Bids Asked about October 1

Pa., Baden—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 250 defense housing units for USHA. Funds granted. A. Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts.

Bids Asked about October 1

Pa., East Rochester—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 75 defense housing units for USHA. A Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. CD 7/30—ENR 8/7 under Beaver.

Bids Asked about October 1

Pa., Midland—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 30 defense housing units for USHA. Funds granted. A. Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. CD 7/30—ENR 8/7 under Beaver.

Bids Asked about October 1

Pa., Monaca—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 100 defense housing units for USHA. A Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. CD 7/30—ENR 8/7 under Beaver.

Bids Asked about October 1

Pa., Pulaski—Beaver County Housing Auth., R. Bennet, chn., Court House, Beaver, Cherry and 1 Sts., 100 defense housing units for USHA. A. Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts., CD 7/30—ENR 8/7 under Beaver.

Bids Asked about October 1

Pa., Vanport—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 125 defense housing units for USHA. A. Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. CD 7/30—ENR 8/7 under Beaver.

Bids Asked about October 1

Pa., West Mayfield—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 170 defense housing units for USHA. A. Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. CD 7/20—ENR 8/7 under Beaver.

Bids Asked October 15

N. C., Fayetteville—Fayetteville Housing Auth., D. J. De Vane, executive dir., two 56 unit housing projects (white and colored). $396,000. CD 8/11—ENR 8/14.

Bids Asked

Calif., San Jose—San Jose Hospital, Santa Clara St., plans by Binder & Curtis, 35 West San Carlos St., rein.-con. hospital addns. $150,000.

N. S., Greenwood—Dpt. Munitions & Supplies, Ottawa, Ont., reconnaissance school, for Dominion Government, Ottawa, Ont. Dpt. Transport, Ottawa, Ont., archts. CD 7/30.

LOW BIDDERS

★**†Ark., Fort Smith**—Con. Q.M., Aug. 25, armored camp from A. Farnell Blair, Montgomery, Ala. Est. $15,000,000. Noted CD 8/5—ENR 8/7.

†Calif., Lerdo—Kern County Housing Auth., 3801 North Chester Ave., Bakersfield, Aug. 25, 85 units at Flying School, from Guy Hall, 1326 30 St., Bakersfield. **$268,491.** CD 8/12—ENR 8/14.

Calif., San Rafael—Marin Co., rein.-con. county courthouse addn., from P. Sartorio, 681 Market St., San Francisco. **$164,707.** N. W. Sexton, de Young Bldg., San Francisco, archt. CD 5/22—ENR 5/29.

Colo., Denver—Housing Auth. of Denver City Co., 76 dwelling unit Lincoln Park Housing Proj., from Mead & Mount Constr. Co., Denver Natl. Bank Bldg., Denver. **$212,000.** D 7/30—ENR 8/7.

†Ind., Versailles—Public Bldgs. Admin., 9 and D Sts., S.W., Wash., D. C., Aug. 26, 100 dwelling units, 1 and 2 story, frame, brick, from Dunlap & Co., 529 Jackson St., Columbus. **$377,563.**

La., Lake Charles—Lake Charles Housing Authority, August 21, Booker T. Washington Courts, La. 4-1, 40 twin house bldgs., from T. Miller & Sons, Lake Charles, **$260,407;** 1 combination community center and dwelling unit bldg., La. 4-2, 36 twin house bldgs., from R. Angelle, Breaux Bridge, **$225,556,** combination, **$448,000.** Dunn & Quinn, Lake Charles, archt. CD 8/5—ENR 8/7.

N. Y., Walkill—Bd. Educ., Central School Dist., Walkill, school, from D. Locascio, Maxwell Rd., Pleasantville. Est. **$272,000.** CD 7/30—ENR 8/7.

★**†Pa., Hatboro**—Public Bldgs. Admin., 9 and D Sts., S.W., Wash., D. C., 300 defense dwelling units, from Anthony P. Miller, Inc., 3333 Arctic Ave., Atlantic City, N. J. **$1,198,000** (90 day basis, **$1,186,000** (30 day basis).

†Tex., Victoria—Public Bldgs. Admin., 9 and D Sts. S.W., Wash., D. C., 100 defense housing units for Army Flying School, Laurent St. and Park Ave., FWA 41111X, from McGough & Bros., 330 Bankers Mortgage Bldg., Houston. **$312,000.** CD 7/9—ENR 7/17.

CONTRACTS AWARDED

★**Ark., Little Rock**—Little Rock Housing Auth., 911 Wallace Bldg., duplex housing, to Harmon Constr. Co., Key Bldg., Oklahoma City, Okla., **$788,887.** USHA. Bids 8/21. Wittenberg & Deloney, Pyramid Bldg., archts. CD 8/26—ENR 8/28.

Colo., Colorado Springs — City, c/o E. L. Mosely, city mgr., condenser to Ross Heater & Mfg. Co., Denver, **$27,740.** CD 7/31—ENR 8/7.

★**†Fla., Jacksonville**—Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., 400 unit housing project, to Geo. D. Auchter Co., Duval Eng. & Contg. Co. and Batson-Cook Co., foot E. Adams St. **$1,500,000.** CD 7/10—ENR 7/17.

†Ga., Savannah—Savannah Housing Auth., W. H. Stillwell, executive dir., Savannah, defense housing project, Ga. 9042-X for USHA, to Chas. J. Trevail, Palm Beach, Fla. **$420,000.** Bids 8/13—CD 8/8.

Ill., Dupo—Dupo High School Dist., c/o Secy. Bd. Educ., rein.-con. brick, high school addn., gen. contract to Bauer Bros. Constr. Co., 424 Lebanon Ave., Belleville, **$252,138;** heating to E. J. Maag Plumbing Co., 333 N. 5. East St. Louis, **$72,362;** plumbing contract to T. McEvilly, 707 St. Louis Ave., East St. Louis, **$33,750.** Bids 8/22. CD 6/11—ENR 6/19. Grand total **$358,250.**

★**†Ill., Scott Field**—U. S. Eng., 816 U. S. Court House and Customhouse, St. Louis, Mo., 37 mobilization type buildings for reception center, to National Builders, Inc., 2114 Foshay Tower, Minneapolis, Minn., and P. O. Box 123, Belleville, **$518,584.** CD 8/21—ENR 8/28.

Ill., Woodstock—J. R. Pierce, city clk., imprv. power plant, new boiler, stoker, piping, to S. J. Reynolds, 2223 W. Ogden St., Chicago. **$150,110.**

Ia., Burlington — Burlington Recreation Center, construction recreation center to Cunningham Bros., 359 E. Grand Ave., Beloit, Wis. **$150,000.** Kruse & Parrish, Davenport, archt.

★**†Ia., Burlington**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., additional buildings at shell loading plant to A. Guthrie & Co., 424 Endicot Bldg., St. Paul, and Al. Johnson Constr. Co., Foshay Tower, Minneapolis, Minn., **$562,000.** CD 8/21—ENR 8/28.

†Ky., Fort Knox—Con. Q.M., motor repair shop, to A. L. Coupe Constr. Co., Inc., 430 E. Burnett St., Louisville. **$95,485.**

★**Ky., Louisville**—Louisville Municipal Housing Comn., 1013 Realty Bldg., 423 slum clearance units, Ky-1-4, gen. contr. and site imprv. to W. J. Paul, Zanesville, O., **$1,082,928;** plumbing, to Koenig Bros., Louisville, **$184,717;** heating, J. W. Danforth Co., Buffalo, N. Y., **$105,774,** electrical to C. L. Smith, Indianapolis, Ind., **$47,800.** Grand total **$1,421,219.** CD 8/1—ENR 8/7.

★**†Mich., Center Line**—United States Housing Auth., F St. between 18 and 19 Sts., N.W., Wash., D. C., 84 defense housing buildings, to O. W. Burke Co., 1010 Fisher Bldg., Detroit. **$1,893,800.** CD 8/26—ENR 8/28.

★**†Miss., Columbus**—U. S. Engrs., Mobile, Ala., 148 bldgs. Army Air Base Training School to Mion Constr. Co., Bona Allen Bldg., Atlanta, Ga., **$4,212,224.** Noted CD 8/2—ENR 8/28.

★**†Mo., St. Charles**—Public Bldgs. Admin., 9 and D Sts., S.W., Wash., D. C., 40 buildings, brick, concrete, Project 23021X, to Stephens-Brown Co, BMA Bldg., Kansas City, **$596,000.**

★**†N. J., Linden** — Lawrence E[illegible] & Research Corp., Vreeland Mills [illegible] brick steel plant for manufacture aero[illegible] equip. for Navy Dpt., to Brown & Ma[illegible] Inc., 142 E. 42 St., New York, N. Y. $[illegible],000 equip. Defense Plant Corp. will finance. CD 8/25—ENR 8/28.

★**†N. Y., Niagara Falls**—Bell Ai[illegible]ft Corp., 2050 Elmwood Ave., additional [illegible] buildings, to Austin Co., 16112 Euclid [illegible] Cleveland, O. Est. **$4,300,000.** Defense Plant Corp. will finance.

★**N. Y., Schenectady**—General E[illegible]ric Co., 1 River Rd., plant for assembl[illegible] and testing radio equip., to James Stewar[illegible] Co., 230 Park Ave., New York. Est. $1,27[illegible],000. Defence Plant Corp. will finance. [illegible] 7/16—ENR 9/4.

★**†O., Columbus**—Con. Q. M., addi[illegible]tional rein.-con. warehouse, 182x1562 ft., at General Army Depot, to Corbetta Constr. Co., 220 E. 42 St., New York, N. Y. **$581,000.** CD 8/21—ENR 8/28.

★**†O., Warren**—United States Housing Auth., F St. between 18 and 19 Sts. N.W., Wash., D. C., 150 defense housing units, to Helen Murray Constr. Co., 222 W Rayen Ave., Youngstown, **$502,000.** CD 8/26—ENR 8/28.

Pa., Beaver—Comrs. Beaver Co., general contract 2 story, bsmnt. power house, to Cook-Anderson Co., 5 and Insurance St., Est. **$40,000.** CD 7/11—ENR 7/17.

★**Pa., Phila.**—Philadelphia Housing Auth., 21 St. and Parkway, 1,000 residences, 20 and Packer Sts., to M. Shapiro & Son Constr. Co., 755 7 Ave., New York, N. Y., **$3,664,750.** CD 8/26—ENR 8/28.

★**†Tex., Wichita Falls**—U. S. Eng., Cotton Exchange Bldg., Dallas, supplemental contract aviation mechanics school, incl. barracks, mess halls, hangars, etc., to Robert E. McKee, 1918 Texas St., El Paso. **$7,555,565.**

★**†Wash., Seattle** — Seattle Housing Auth., Central Bldg., 500 defense housing units on Sears tract, east of Jefferson Park Golf Course, for USHA, to Western Constr. Co., Textile Tower. **$1,704,000.** CD 8/21—ENR 8/28.

Wis., Ripon—Ripon College, 1 and 2 story, 150x156 ft., rein.-con., steel, stone union bldg., to F. G. Bartell, St. Cloud. Est. **$150,000.** CD 7/28—ENR 7/31.

N. S., Pictou—Dpt. National Defense for Air, Ottawa, Ont., temporary buildings, to Pictou Fdry. & Machine Co., Ltd., Pictou. **$150,000.**

Ont., Niagara Falls—Wartime Housing Ltd., 55 York St., Toronto, 100 family dwellings, Drummond Rd., to Ontario Constr. Co., Ltd., Bank of Toronto Bldg., St. Catherines. Est. **$250,000.** CD 8/12—ENR 8/14.

★**Que., Mont Joli**—Dpt. National Defense for Air., Ottawa, Ont., 43 temporary buildings at No. 9 Bombing and Gunnery School, to Collet Freres, Ltd., 1978 Parthenais St., Montreal. Est. **$600,000.**

COMMERCIAL BUILDINGS

PROPOSED WORK

Ark., Little Rock—American Security Co., 220 W. 2 St., 78 dwellings. $150,000.

Calif., San Francisco—San Francisco Theatres, Inc., 745 Clement St., completing plans by T. L. Pflueger, 580 Market St., rein.-con. theater, L Ave. and Geary St. $150,000.

★**Ill., Chicago**—Schmidt, Garden & Erickson, archts., 104 S. Michigan Ave., soon lets contract 8 story nurses home for St. Lukes Hospital, 1439 S. Michigan Ave. $650,000. CD 5/21—ENR 5/29.

Ia., Burlington—Bowl-Inn Recreation Center, bowling recreation center, near Crapo Park. $150,000.

★**Mo., St. Louis**—Syndicate to be formed, c/o St. Louis Chamber of Commerce, 511 Locust St., wholesale fruit and vegetable market, Mill Creek Valley District, between Gratiot St. and Scott Ave., Garrison Ave. and Grand Blvd., including railroad sidings, etc. $1,500,000.

★**N. J., Clark**—Riverside Park Div., Co., Skyline Ave., 1½ story, bsmnt., home development, Riverside Park. $1,250,000. W. Pfeiffer, 689 Newark Ave., Elizabeth, archt.

N. J., Dumont — Sandhurst Development, Washington Ave., thirty-two 2 story, bsmnt., 24x32 ft., brick veneer homes, Washington Ave. $152,000.

★**N. J., Fort Lee**—Rosen Constr. Co., 228 W. 58 St., New York, 1½ story, bsmnt. brick homes, $800,000. C. Wood, Brookside Ave., Merrick, New York, archt.

N. J., Hackensack—Guertin Homes, Inc., c/o Miss Hoyt, 65 Central Ave., 2½ story, bsmnt., brick frame and stone homes, Colonial Terrace. $280,000.

N. J., Teaneck—W. Hill, 120 Crane St., Bogota, N. J., 2 story, bsmnt., brick veneer, frame homes, W. Englewood Ave. $180,000.

N. J., Wallington—Star Homes Inc., 128 Main St., Hackensack, 1½ story, bsmnt. residential development, Main Ave., $260,000. W. G. Bartels, 270 Main St., Hackensack, archt.

★**Pa., Erie**—Hamot Hospital, Col. P. L. Jones, supt., East 2 and State Sts.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

sketches by Myers & Johnson, 821 Commerce Bldg., brick, steel, hospital addn. and nurses home. $1,200,000. Will apply for FWA financing.

Tex., Corpus Christi—Corpus Christi Yacht Club, E. Kain, mgr., 404 Jones Bldg., plans by R. Newell Waters, Heeps Bldg., and V. D. Phenix, associated archt., Corpus Christi, club house, swimming pool. $225,000.

Tex., McAllen—Southwestern Bell Telephone Co., McAllen, telephone building. $250,000.

Tex., Sherman—Sherman Housing Corp., c/o R. L. Hall, dwelling construction. $200,000.

★**Wash., Manette**—Olympic Bldg. & Supply Corp., c/o R. W. Miller, Central Bldg., Bremerton, 100 new houses, 2 mi. north of here. $500,000.

Wash., Tacoma—Chicago, Milwaukee, St. Paul & Pacific Ry., W. H. Penfield, ch. engr., Union Sta., Chicago, Ill., new railway depot. $150,000.

BIDS ASKED

Bids Asked about September 15

Pa., Rochester—Rochester General Hospital, G. A. Baldwin, Sr., pres. Bd., 3 story, bsmnt., 40x50 ft., brick hospital addn. $150,000. J. E. Martsolf, 512 3 Ave., New Brighton, archt. CD 6/26—ENR 7/3.

Ill., Centralia—Owner c/o C. W. Nichols, archt., 59 E. Van Buren St., Chicago, 8 story hotel. $350,000.

Pa., Lewistown—B. F. Whitman, archt., Central Natl. Bank Bldg., York, 2 story, bsmnt., club house, for Owl's Club, Lewistown. $150,000. CD 8/7—ENR 8/14.

Pa., Penn Twp.—R. E. and S. Navari, Railroad Ave., Verona, 1 story, 48x129 ft. theatre and storerooms. M. J. De Angelis, 1401 Temple Bldg., Rochester, N. Y., archt.

CONTRACTS AWARDED

Calif., Marysville—Capital Co., 625 Market St., San Francisco, rein.-con., steel bank offices to C. C. Stephenson, P. O. Box 701, Marysville, **$175,000.** CD 7/30—ENR 8/7.

Calif., Richmond—C. T. Lindsay, P. O. Box 1226, 1 story wood frame homes, separate garages. Day labor. **$150,000.**

Calif., San Francisco—W. Knickerbocker, c/o contractors, homes vicinity Appollo and Thornton Aves., to J. Arnott and Son, 633 Taraval St., San Francisco, over **$150,000.**

★**Del., Edge Moor**—Wilmington Constr. Co., Edgewood Hgts., residential construction. Owner builds. **$800,000.**

D. C., Wash.—Cedar Hill Cemetery Corp., Suitland Rd., Md., 60x172 ft. sanctuary mausoleum, to W. P. Lipscomb & Co., 535 Woodward Bldg. **$250,000.** W. E. Erkes, 1211 Rives-Strong Bldg., Los Angeles, Calif., archt.

Ill., Wheaton—Wheaton College, Wheaton, gymnasium to Julian Constr. Co., 2716 W. Giddings St., Chicago, Ill. **$155,000.** H. A. Brand, 400 W. Madison St., Chicago, archt.

★**Mich., Detroit**—House of Good Shepherd, 2650 W. Fort St., 2 story, bsmnt., brick, steel, stone, buildings plain fdn., to W. E. Wood Co., 4649 Humboldt Ave., Detroit. Est. **$500,000.** P. O'Meara & Associates, St. Louis, Mo., archts.

Mont., Butte—St. James Hospital, hospital for Sisters of Charity, to Cahill-Mooney Constr. Co., 220 E. Front St. **$338,000.** CD 6/19.

★**Neb., Omaha**—Upland Homes, Inc., 30 and Y Sts., constructing 327 residences. **$1,500,000.** Day labor. John Latenser & Sons, 1307 Farnam St., archts.

N. J., North Arlington—Arlington Gardens Inc., Beachwood Park River Road, Paterson, 2 story, bsmnt., 24x32 ft., brick, frame, homes, River Road. Day labor. **$180,000.**

N. J., Rahway—Raleigh Alben Square Inc., 325 Main St., 2½ story, bsmnt., brick garden apartments, Linden Ave. Owner builds. M. Munn Pattison, 552 W. Inman Ave., Rahway, archt.

N. J., Secaucus—C. A. Diehl, 191 Franklin St., forty 2 story, bsmnt., 24x30 ft., brick veneer homes, Fairview Ave. Owner awards separate contracts. **$200,000.** P. H. Butler, 263 Elm Ave., Teaneck, archt. CD 6/19—ENR 6/26.

N. Y., Kenmore—M. J. Peterson, Irving Terrace, 50 residences, owner builds. Over **$150,000.** Swain & de Forest, 227 Oxford Ave., Buffalo, archts.

N. Y., New York—Walde Corp., 4141 Bway., 4 story, 33x102 ft. apartment, 219 St. and Bronx Blvd., separate contracts. Est. **$300,000.** CD 8/21—ENR 8/28.

N. Y., Tahawus—Titanium Pigment Corp., div. of National Lead Co., 111 Bway., New York, 31 residences, etc., to Branche & Callahan, Saranac Lake. Est over **$150,000.** A. J. Wheeler, 25 Bway., New York, archt.

O., Lorain—H. G. Selby, Selby Construction Co., Cleveland, 1 story, 5 room houses, East Haven. Own forces. **$200,000.**

★**Pa., Bethlehem** — Chester-Watkins Corp., c/o A. L. Hill, 1420 Chestnut St., Phila., residential development, separate contracts. Over $750,000.

★**Tex., Dallas**—Mercantile National Bank, Magnolia Bldg., 30 story, bsmnt. bank and office, separate contracts. **$2,500,000.** CD 7/22—ENR 7/24.

Tex., Dallas—Texas Newsreel Theatres, Inc., Southland Life Insurance Co. Bldg., new theatre and remodeling existing building, to G. P. O'Rourke Constr. Co., 2019½ Jackson St. Est. $150,000.

Wash., Bremerton—Osran Amusement Co., Skinner Bldg., Seattle, 1 story, 103x135 ft. masonry theater, to Henrik Valle Constr. Co., 407 Third Ave. W., Seattle. **$150,000.** CD 7/15—ENR 7/17.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., Marina—CREAMERY—Ziegler Creamery, plans by C. J. Ryland, 136 Bonifacio Pl., Monterey, 1 story, rein.-con. creamery, complete pasteurizing plant. Over $40,000.

Calif., Oakland—MILL ADDN.—Eureka Mill & Lumber Co., 3737 San Leandro St., mill addn. and yard extens. Over $40,000.

Calif., Oakland — FREIGHT SHEDS — Southern Pacific Railroad, Oakland Pier, 1 story freight sheds. Est. $40,000.

Calif., San Francisco—PLANT ADDITION—Stuart Oxygen Co., 211 Bay St., plant addn. $40,000.

Calif., Sonora — WAREHOUSE ADDITIONS—Pacific Gas & Electric Co., 245 Market St., San Francisco, warehouse addn., plant extension.

Conn., Stamford—FACTORY—Electric Specialty Corp., 211 South St., sketches 1 story, brick, steel factory addn., South St. Over $40,000.

Ill., Chicago — FACTORY — Alschuler & Friedman archts., 28 E. Jackson Blvd., soon let contract 2 story, 208x223 ft. and 2 story, 100x145 ft. factory buildings, for Edw. Katzinger Co., 1949 N. Cicero Ave. $250,000.

Ill., Granite City—PLANT ADDITION—Granite City Steel Corp., ingot plant addn., equip., etc.

Ill., Northbrook—FACTORY—M. B. Austin Co., 108 S. Desplaines St., Chicago, revised plans by M. L. Pereira, 100 W. Monroe St., Chicago, land 2 story factory. $50,000.

Ind., Mt. Vernon—REFINERY—Ind. Farm Bureau, R. L. Booker, mgr., altering refinery to mfg. gasoline, etc. Over $40,000.

Ia., Sioux City — FACTORY — Swift & Co., Chicago, Ill., factory addn. $225,000.

Md., Baltimore—FACTORY—American Totalisator Co., 5 E. Center St., bids soon 1 story, 100x150 ft., brick, steel factory and warehouse, 28 St. and Hampden Ave. $50,000. H. F. Baldwin, 12 E. Pleasant St., archt.

Mass., Lynn—FACTORY—J. C. Pitman & Sons, Inc., 711 Broad St., plans by G. A. Cornet, 14 Central Ave., 2 story, 35x122 ft. brick factory addn., Broad St., $40,000.

Mass., Waltham—Judson L. Thomson Mfg. Co., South St., soon lets contract 1 story, bsmnt., 55x64 ft., brick, steel, rein.-con. boiler plant. C. T. Main, Inc., 201 Devonshire St., Boston, engr. (**Correction**—date of bids.) CD 8/19—ENR 8/21.

Mich., Detroit—FACTORY—Fruehauf Trailer Co., 10940 Harper Ave., brick steel, concrete factory addn. to trailer plant. $99,750. Richard F. Marr, 514 Brainard St., Detroit, archt.

Mich., Detroit—PLANT—Albert Kahn, Inc., New Center Bldg., Detroit, soon lets contract 1 story, 280x360 ft., brick, steel, concrete addn. to gear and axle plant, for Chevrolet Motor Div. of General Motors Corp., Holbrook Ave. $350,000.

★**Mo., St. Louis**—PLANTS—Laclede-Christy Clay Products Co., 411 North 7 St., plant addns. on Manchester Ave. near Kingshighway Blvd. and South Kingshighway Blvd. north of Delor St. $1,000,000 with equip.

Mo., Sikeston — MACHINE SHOP — Hans Machine Works, 1 story 60x120 ft. brick, concrete, steel machine shops, con. fdn. $40,000.

Nev., Las Vegas — PLANT — Blue Diamond Gypsum Mines, I. King, mgr., Las Vegas, plant for manufacture gypsum products. Over $40,000.

N. J., Newark—MANUFACTURING BLDG.—G-O-2-Fire Equip. Co., 10 Empire St., 1 story, brick, steel mfg. bldg., Rt. 25. $400,000.

N. Y., Blasdell — FACTORY — Exolon Co., Inc., D. M. Ramsey, mgr., Blasdell, factory. $100,000.

N. Y., New York—GARAGE—Times Square Garage Corp., Inc., 752 West End Ave., plans by O. Goldschlag, 67 West 44 St., 2 story, 84x98 ft. garage, 220 West 41 St. $85,000.

N. Y., Wayland—MILL—Steuben Silk Mill, plans by M. De Angelis, Temple Bldg., Rochester, 1 story, 64x200 ft. silk mill, $40,000.

O., Cleveland — FORGE and MACHINE SHOP—Champion Machine & Forging Co., H. W. Foster, pres., soon lets contract 1 story, 145x400 ft. forge shop; 1 and 2 story, 60x100 ft. machine shop, office. $450,000. E. R. McGeorge and W. R. Hargett, 9400 Quincy Ave., engr.

O., Columbiana — FACTORY — Columbiana Boiler Co., bids 30 days, 1 story, 60x210 ft., brick, steel, con. bldg. Over $50,000.

O., Elyria — PLANT ADDITION — Bendix-Westinghouse Co., Elyria, automotive air brake plant addn. Over $50,000.

Ore., Philomath—SAWMILL—T. Dechterm, Seaside, sawmill, 125,000 board ft. daily. $40,000.

Pa., Canonsburg — PLANT — Cannonsburg Steel & Iron Co., R. E. Rupelt, genl. mgr., plant addn., imprvs. alterations. Over $40,000.

Pa., Pennsville — FACTORY — Industrial Equipment Inc., Pennsville, 1 story, 50x100 ft. factory. $40,000.

Pa., Wilkes-Barre — PLANT — Pressed Steel Co., Wilkes-Barre, 1 story, brick, steel plant addn. $40,000.

Tex., Beaumont—STORAGE — Pennsylvania Shipbuilding Corp., Beaumont, rejected bids Aug. 18, 2 story, 100x150 ft., brick, concrete storage building. Revising plans, bids soon. Steinman & Goleman, Liberty Bldg., archts. J. Bringhurst, c/o owner, engr. CD 7/30—ENR 8/7.

★**Tex., Brownsville**—REFINERY—Davis & Co., Inc., c/o N. V. Hansell, 1322-40 Commerce St., Houston, and c/o Tank Farm, Brownsville, abandoned constructing refinery and by-products plant. $2,500,000. CD 8/18—ENR 8/21.

★**Tex., Gilmer**—GENERATING PLANT—Farmers Electric Cooperative, Gilmer, soon lets contract equipment for generating plant. $550,000. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

Tex., Harlingen—FREIGHT TERMINAL—Jones Motor Freight Lines, 1001 W Jackson St., plans by Woolridge & Torres, C. R. Anthony Bldg., 1 story, 60x122 ft. brick, steel, concrete freight terminal. $40,000.

Tex., Houston—PLANT — Houston Packing Co., 3301 Navigation Blvd., cold storage unit. $40,000.

Tex., Lubbock—WAREHOUSE—Furr Food Stores, bids soon 1 story, brick, concrete, steel warehouse. $60,000.

★**Tex., Richardson** — PLANT — Guiberson Corp., 1000 Forest Ave., Dallas, diesel engines plant. $3,500,000.

Tex., San Antonio—WAREHOUSE—Central Forwarding Co., Inc., 1900 S. Flores St., brick, steel warehouse. $40,000.

Wash., Yakima—WAREHOUSE—Lloyd Garretson Co., fruit warehouse and cold storage plant, Painted Rocks, near here. $40,000.

Wis., Clintonville—FACTORY—Four Wheel Drive Co., 100x120 ft. factory addn. $40,000 with equip.

★**Wis., Knowlton** — HYDRO-ELECTRIC PROJECT—Consolidated Water Power & Paper Co., Wisconsin Rapids, hydro-electric project, Wisconsin River. $1,500,000.

Wis., Pulaski—DAIRY BARN — Franciscan Fathers, 2 story, 40x120 ft. dairy barn, 40x28 ft. horse barn wing, 22x26 ft. bull pen wing, 20x21 ft. dairy room wing. L. A. Geniesse, 226 N. Washington St., Green Bay, archt.

Wis., Sturgeon Bay—SHOP—Leathern Smith Coal Shipbuilding Co., 80x200 ft. plate and assembly shop, 200x650 ft. pier.

Alta., Edmonton—MILL—M. D. Muttart Ltd., 21 84 St., lumber mill. $50,000.

Alta., Vermilion — MILL — W. R. Wilbe & Sons, flour and grist mill. $50,000.

B. C., Laidlaw—FACTORY—F. H. Barber, Laidlaw, factory, 120 acre site, Jones Creek.

B. C., Prince Rupert—MACHINE SHOP—Canadian National R.R., C. B. Brown, ch. engr., 360 McGill St., Montreal, Que., machine shop. $60,000.

B. C., Vancouver—PLANT—Century Furniture Co., Ltd., 416 Vancouver Blk., plant. $40,000.

B. C., Vancouver—PLANT—Chipman Chemicals, Ltd., 1040 Lynn Ave., Winnipeg, Man., chemical weed killer plant. $40,000.

B. C., Vancouver—MILLS—Choate Timber Co., Ltd., 207 Inns of Court, shingle and planing mills. $40,000.

B. C., Vancouver—MILL—Port McNeill Logging Co., Ltd., Hall Bldg., logging mill and wood working plant. $40,000.

B. C., Vancouver—MILL—M & B Sawmills, Ltd., 904 Hall Bldg., shinige mill, saw mill, etc. 40,000.

B. C., Vancouver—PLANT—Sorg Pulp Co., Ltd., 1500 Royal Bank Bldg., plant addn., Howe Sound. $50,000.

B. C., Vancouver—PRINTERY, etc.—Rockabinder Manufacturing Co., Ltd., 475 Howe St., printery and bindery. $40,000.

B. C., Vancouver—SAW MILL—McNair Bevel Siding Ltd., 7 Argyle St., sawmill, etc. $40,000.

B. C., Victoria—FOUNDRY—Consolidated Engines, Ltd., 14 Harbour Rd., iron foundry. $50,000.

Man., Morden—PLANT—McCabe Grain Co., Ltd., Edmonton, Alta., corn drier buildings, 20x45x20 ft., frame on concrete. $40,000.

Man., St. Boniface—FACTORY—Canadian Box Co., Ltd., 28 Pacific St., plans by Green-Blankenstein, Russell & Ham, 610 Paris Bldg., Winnipeg, factory. $50,000.

INDUSTRIAL BLDGS. (Proposed Work, Cont'd.)

N. S., Halifax—MILL—Syndicate, c/o Dpt. Provincial Treasurer, Halifax, flour mill. $100,000.

N. S., Middleton—PLANT—Scotian Gold, Ltd., Middleton, dehydrating plant. $50,000.

Ont., Chatham—PLANT—Chrysler Corp. of Canada, J. D. Mansfield, genl. mgr., Tecumseh Rd., Windsor, plans by Hutton & Souter, 36 St. James St., S., Hamilton, 1 story, 200x210 ft. brick, steel plant. $150,000.

Ont., Cornwall—PLANT—Courtauldo Canada, Ltd., Cornwall, silk plant exten. on 85 acre site, Kings Hy. 2.

Ont., Hamilton—PAINT SHOP—National Steel Car Corp., Kenilworth St. N., 1 story, steel, clay tile paint shop exten. $50,000. Hutton & Souter, Pigott Bldg., archts.

Ont., Matachewan — MILL — Matachewan Mines, Matachewan, 2 story, 30x60 ft. frame mill, concrete fdn. $40,000.

Ont., Orleans—PLANT—Eastern Ontario Fibre Flax Co., Inc., c/o J. P. Clouthier, plant. $40,000.

Ont., Toronto—FACTORY — Standard Cycle Products, Ltd., W. Sayers, pres., 407 Logan Ave., 1 story, brick, steel factory. $45,000.

Ont., Toronto—GARAGE—G. Rodanze, 253 W. Wellington St., plans by G. S. Adamson, 9 Elm St., steel, brick garage and truck terminal, rein.-con. fdn. $100,000.

Que., Cartierville—PLANT—Noorduyn Aircraft Ltd., Cartierville, plans by L. & P. Amas, 133 Commissioner St., Montreal, superstructures for several buildings. $100,000.

Que., Lachute—PLANT—Dominion Shuttle Co., Ltd., Lachute, 34x60 brick, steel plant exten., concrete fdn. $40,000.

Que., Montreal—DAIRY PLANT—Guaranteed Pure Milk Co., Ltd., 1025 Aqueduct St., plans by Hutchison & Wood, 204 Notre Dame St., W., dairy plant exten. $40,000.

Que., Quebec City—FACTORY—Provincial Govt., Quebec City, factory to manufacture flour from fish waste. $40,000. Dpt. Fisheries, Quebec City, engrs.

Que., St. Laurent—FOUNDRY—R. Mitchell Co., Ltd., Ville St., plans by G. D. Thompson, 2049 McGill College Ave., Montreal, fdry and boiler plant exten. $75,000.

Que., Shawinigan — FACTORY — Shawinigan Stainless Steel Co., c/o Shawinigan Chemicals, Ltd., factory. $50,000. H. S. Reid, c/o owner, supt.

Que., Shawinigan Falls—FACTORY—Shawinigan Stainless Steel Co., Ltd., Shawinigan Falls, factory. $50,000.

★**Que., Shawinigan Falls**—PLANT—Canadian Resins & Chemicals, Ltd., subsidiary Shawinigan Water & Power Co., 107 Craig St. W., Montreal, plant for manufacture of ploy-omylchloride rubber substitute. $1,500,000.

Que., Shawinigan Falls—PLANT—Textile Weavers Ltd., 14 St. George St., Grand Mere, plant exten. $50,000.

Que., Sherbrooke—PLANT—Canadian Ingersoll Rand Co., Ltd., Commissioner St., plans by H. J. James, archt., c/o owner, altering plant, Des Forges St. $70,000.

Que., Ste Anne de Beaupre—DISTILLERY—L. Cantin, 427 St. Vallier St., Quebec City, distillery. $50,000.

Que., Three Rivers—PLANT—Canadian International Paper Co., Ltd., 1155 Metcalfe St., Montreal, coal handling plant. $75,00.

Que., Valleyfield—PLANT—Montreal Cottons Ltd., 70 Dufferin Rd., modernizing plant. $40,000.

Que., Westmount—GARAGE—L. Donola, 630 Dorchester St., W., Montreal, 85x120 ft. garage, $150,000.

Sask., Regina—REFINERY—Imperial Oil Co., Ltd., McCallum Bldg., oil refinery addn. $55,000.

BIDS ASKED

★**N. Y., Rochester** — FACTORY — Bond Clothes, Inc., Martin St., clothing factory. $550,000. S. Firestone, and E. M. Lorscheider, Archts. and Engineers Associated, 59 South Ave., archts. and engrs. CD 6/23—ENR 6/26.

Pa., Butler—FACTORY—American Bantam Car Co., Butler, 1 story, 50x250 ft. steel frame factory. $45,000. P. Greene, c/o owner, engr. CD 8/18.

Tex., Deer Park—REFINING UNIT—Shell Refining Co., Shell Bldg., Houston, aviation gasoline refining unit. $300,000. CD 8/15—ENR 8/21.

CONTRACTS AWARDED

Calif., Los Angeles—MARKET—Von's Grocery, Co., 1020 S. Fairfare Ave., L. A., 1 and 2 story, con. rein. brick, market to Jackson Bros.-Le Sage 547 S. Fairfax Ave., Los Angeles. **$40,000.** H. S. Johnson, 1001 Architects Bldg., archt. J. Mackel, 1126 N. La Brea Ave., L. A., engr.

Calif., Oakland—SHEDS—Merchants Express Corp., Terminal Ferry and Freight, Oakland, wood frame freight sheds, truck sheds, etc., to Newman, Carlsen and Franz, 50 Oak Grove St., San Francisco, **$75,000.**

Calif., San Francisco — WAREHOUSE — Herbst Bros., 1525 Mission St., rein.-con. warehouse, to F. R. Seigrist, 604 Mission St., **$65,000.**

Ill., Barrington—WAREHOUSE—Jewel Tea Co., Barrington, warehouse, to Dahl-Stedman Co., 11 S. LaSalle St., Chicago. **$300,000.**

Ill., Chicago—BAKING PLANT—L. J. Harriss Pie Co., 849 W. Ohio St., 1, 2, and 3 story, bsmnt. baking plant addns., to Schiess Constr. Co., 236 N. Clark St. Est. **$70,000.** C. J. Kastrup, 7346 W. Madison St., archt. E. R. Gretschke, 123 W. Madison St., engr.

Ill., La Grange—PLANT, etc.—Electro-Motive Corp., subsidiary General Motors Co., addn. to No. 2 manufacturing plant, pump building, addn. to sewage treatment plant, to Rognar Benson, 4744 W. Rice St., Chicago.

Ill., Moline—PLANT—Deere & Co., Moline, heating treating and storage building to A. Carlson Co., Moline. **$104,000.**

Mich., Detroit—PLANT ADDITION—Detroit Sulphite Pulp & Paper Co., 9125 W. Jefferson Ave., 1 story, brick, concrete, paper plant addn., to W. J. C. Kauffmann Co., 10610, Shoemaker Ave., Detroit. Est. **$40,000.**

Mich., Lansing—PLANT—Nash-Kelvinator Corp., 14250 Plymouth Rd., Detroit, remodeling buildings, to H. G. Christman-Lansing Co., 408 Kalamazoo Plaza, Lansing, **$140,000.**

Mich., River Rouge—PLANT—Ford Motor Co., Dearborn, 4 story, 360x400 ft. brick, steel, rein.-con. addn. to aircraft plant, to Esslinger Misch Co., 159 E Columbia St., Detroit. CD 7/25—ENR 7/31.

Mich., Saginaw—PLANT—Saginaw Malleable Iron Div. General Motors Corp., 1 story, brick, steel, rein.-con. foundry addn. to The Austin Co., 429 Curtis Ave., Detroit. Est. **$50,000.** CD 8/2/40—ENR 8/8/40.

Minn., St. Paul—GARAGE—Sanitary Farms Dairies, Inc., E. G. Riedel, pres., 888-890 E. Minnehaha St., 1 story brick, tile, garage and alterations to existing creamery bldg, 415 Grove St. to P. Steenberg Constr. Co., W-1757 First National Bank Bldg., St., Paul, **$90,000.** Tolz, King & Day, 1509 Pioneer Bldg., archt.

Mo., St. Louis—TERMINAL AND GARAGE —Western Trucking Company, Inc., 1535 N 7 St., 1 and 2 story, bsmnt., 45x125 and 51x 220 ft., brick concrete, terminal and garage, 1022 S. 11 St., to Jacob Rubin & Sons, 602 Wainwright Bldg. Est. **$40,000.** S. L. Rubin, 601 Wainwright Bldg., archt.

N. J., New Brunswick—FACTORY—Johnson & Johnson, 500 George St., 2 floor, brick, 70x120 ft. addn., Bldg. 11, and alterations Bldg. 49, to Rogers & Sons Constr. Co., 71 John St., New Brunswick.

N. J., Weehawken — FACTORY — Manley Mount St. Corp., c/o lessee, S. Blickman Inc., 534 Gregory Ave., 2 story, 175x225 ft., brick, steel factory, Gregory Ave., to J. A. Sarrubic & Son, 415-84 St., West New York, N. J., **$210,000.** Binda & Bail, 2902 Bergenline Ave., Union City, archt.

N. Y., Albany — PLANT — Watervliet Tool Co., Inc., 1039 Bway., 100x120 ft. machine tool plant, own forces under supervision J. M. Myers, engr., Columbia Pl. CD 4/15—ENR 4/17.

N. Y., Brooklyn—FACTORY—David & Geck, Inc., 217 Duffield St., altering 6 story manufacturing and office building, 57 Willoughby St., to McAndrew Constr. Co., 12 E. 41 St., New York. Est. **$50,000.** CD 6/13—ENR 6/19.

N. Y., Buffalo—PLANT—Ralston Purina Co., L. Hedrick, dist. mgr., 121 Prenatt St., 2 story, 30x170 ft. plant, to Shirley Herman Co., 1807 Elmwood Ave. Est. over **$40,000.** CD 9/18/40 —ENR 9/26/40.

N. Y., Glens Falls—FACTORY—Imperial Paper & Color Corp., Warren St., 45x150 ft. factory, to Chas. E. Waggaman, Glens Falls. Est. **$40,000.**

N. Y., Liverpool—PLANT—Air Cooled Motors Corp., Liverpool Rd., 66x160 ft. plant, to Conlon & Farnsworth, State Tower Bldg., Syracuse. Est. **$40,000.** L. M. Cook, 250 Whittier Ave., Syracuse, engr.

N. Y., Niagara Falls—LABORATORY—Vanadium Corp. of America, Saunders Settlement Rd., laboratory, to Rust Eng. Co., Clark Bldg., Pittsburgh, Pa. Est. over **$40,000.** CD 6/3—ENR 6/5.

N. Y., North Tonawanda—PLANT—National Grinding Wheel Co., Inc., J. Russ, pres., Walck Rd., 2 story, 40x122 ft. plant, to Laur & Mack Contg. Co., Inc., 1400 College Ave., Niagara Falls. Est. **$40,000.**

★**N. Y., Schenectady**—TUBE FACTORY—General Electric Co., 1 River Rd., manufacturing building for industrial and radio tubes, to Austin Co., 19 Rector St., New York. Est. **$1,000,000.**

O., Cleveland—TRANSFORMER STATION—Cleveland Electric Illuminating Co., W. Hartman, Pur. Agt., 19314 Nottingham Rd., 1 story, 60x120 ft. brick, steel, transformer Sta., to Bolton-Pratt Co., 1276 W. 3 St., Cleveland. Est. **$50,000.**

O., Cleveland—FACTORY ADDITION—Independent Towel Supply Co., 1502 Central Ave., fifth story factory addn., to D. W. Rankin, 1836 Euclid Ave. Est. **$40,000.** Christiam, Schwarzenberg-Gaede Co., 1836 Euclid Ave., engr.

O., Cleveland—PLANT—Nation[illegible] Bronze & Aluminum Co., J. H. Schmeller, Pres., E. 93 and Laisy Ave., 1 story, 65x167 [illegible] brick, steel, heat treating plant, to H. L. [illegible] Co., 5306 Chester Ave., Cleveland. Est. $40,000. A. R. Simon, 5300 Chester Ave., engr.

O., Hamilton—FACTORY ADDITION—Herring-Hall-Marvin Safe Co., Grand Blvd., 1 story, steel, brick, con. plant addn. to Antenen Engr. Co., Hamilton. **$108,000.** CD 7/30—ENR 8/7.

★**O., St. Marys**—PLIOFILM ADDITION—St. Marys Mfg. Co., St. Marys, pliofilm bldg. addn., to G. Everett Knowlton & Son, Holley Bldg., Bellefontaine. Est. **$500,000** incl. equip.

Pa., Foster Brook (Bradford P. O.)—PLANT IMPROVEMENTS—Kendall Refining Co., G. Koch, pres., Kendall Ave., improvs., addns., etc., own forces, separate contracts. Est. over **$40,000.** CD 8/13—ENR 8/21.

★**Pa., Pittsburgh**—PLANT—Jones & Laughlin Steel Corp., C. E. Littler, ch. engr., J & L Bldg., 3 and Ross Sts., 1 story plant exten., 16 Ward, separate contracts. Est. **$1,000,000.**

Pa., Sharpsburg—WAREHOUSE, etc.—H. H. Cahoon, archt., 611 Maloney Bldg., Pittsburgh, 1 story, 80x200 ft. warehouse, office and garage for Fort Pitt Brewing Co., M. Berardino, pres., 16 and Mary Sts., to Navarro Corp., 6230 Broad St., Pittsburgh. Est. **$60,000.** CD 3/28 —ENR 4/3.

Pa., Shillington—BOILER HOUSE—Fairy Silk Mills, E. S. Jenckes, in charge, Shillington, boiler house addn., separate contracts. Est. **$40,000.** CD 8/7—ENR 8/14.

Pa., West York (York P. O.) — DAIRY PLANT—B. F. Whitman, archt., Central Natl. Bank Bldg., York, 1 and 2 story, brick, concrete dairy plant, Adams and Orange Sts., for Yuengling Dairy Products Co., Pottsville, separate contracts. Est. **$40,000.** CD 8/7—ENR 8/14.

R. I., Providence—FACTORY—Armour & Co., Union Stock Yards, Chicago, Ill., 1 story, bsmnt. brick, steel, con. fdn., factory, garage, to Hope Bldg., Co., Inc., 36 Exchange Pl., Providence. Est. **$200,000.**

Tex., Dallas—PLANT—Fleischmann Yeast, c/o Standard Brands, Inc., 595 Madison Ave., New York, N. Y., and 2 story yeast plant, to Inge Constr. Co., 2326 N. Beckley St. Dallas. **$62,000.** CD 7/31—ENR 8/7.

Tex., Edcouch—CANNERY—Missouri Pacific Lines, Houston, F. E. Bates, 13 St. Olive to Pine Sts., St. Louis, Mo., ch. engr., additional fruit packing plant and citrus cannery, 80x120 ft. and 2 story, 120x160 ft. Owner builds. **$52,000.**

Tex., Lubbock—WAREHOUSE — Furr Food Stores, 1 story, brick, concrete, steel warehouse, to R. E. Maxey, Lubbock. **$43,682.** CD 8/22—ENR 8/28.

Tex., Texas City—PLANT—M. K. Kellogg Co., c/o Pan American Oil Co., Texas City, 60x200 ft. steel building, annealing furnace, etc., force account. **$150,000.**

Wis., Clintonville—FACTORY—Four Wheel Drive Auto Co., 1 story, 100x120 ft., con. brick, steel, assemblying room factory addn. Owner builds.

Alta., Edmonton—GRAIN ELEVATOR—McCabe Bros., Grain Co., Ltd., Edmonton, grain elevator, day labor. Est. **$40,000.**

Alta., Milk River—GRAIN ELEVATOR—Elliosn Milling Co., Ltd., 21 S. 2 St., Lethbridge, grain elevator to Voss Bros., 414 Lancaster Bldg., Calgary. Est. **$40,000.**

Ont., London—PLANT—Kelvinator of Canada, C. W. Hadden, mgr., Dundas St. E., 1 story, 85x190 ft. brick, steel, tile plant to Hyatt Bros., 290 Egerton St. Est. **$100,000.**

★**Ont., Niagara Falls** — PLANT — Welland Chemical Wks., Ltd., Garner Rd., plant addn., to Chemical Constr. Corp., Ltd., Garner Rd. Est. **$2,000,000.**

Ont., Ottawa—PLANT—Ottawa Car & Aircraft, Ltd., 301 Slater St., 3 story, 70x140 ft. rein.-con., brick, tile plant addn., rein.-con. fdn., to Doran Constr. Co., Ltd., 73 Bank St. **$175,000.**

Ont., Toronto—PLANT — Drummond-McCall & Co., Ltd., 373-75 Front St. E., plant addn. to Ramsey Contg. Co., Ltd., 39 Indian Road Crescent. **$45,000.** T. Pringle & Son, Ltd., 20 Toronto St., engrs.

Ont., Toronto—STORAGE—Tip Top Tailors, Ltd., Boulevard Dr., 2 story, 50x200 ft. brick, storage building, concrete fdn., to Carr & Barnes, 481 Eglinton Ave. W. Est. **$65,000.**

★**Que., Chandler**—MILL—Gasperia Sulphite Co., Ltd., Chandler, main office 10 Blvd. des Capucius, Quebec City, plant exten., own forces. Over **$500,000.** R. G. Chambers, c/o owner, engr.

Que., Montreal—SHOP—Canadian National Ry., C. B. Brown, ch. engr., 360 McGill St., steam up shop at Pointe St. Charles Yards, to J. S. Henson, 660 St. Catherine St., W. **$70,000.** CD 7/20—ENR 8/7.

Que., St. Jean—PLANT—Singer Mfg. Co., Ltd., 165 St. Paul St., plant addn., to J. P. Trahau, 178 Mercier St. Est. **$215,000.**

Alaska, Ketchikan—WAREHOUSE, etc.—Alaska Steamship Co., Pier 2, Seattle, Wash., 1 story warehouse and reconstruction pier, to H. F. Brennan & Co., Ketchikan. Est. **$50,000.**